

Yong-Lak Park

Entomology Program, Division of Plant & Soil Sciences, West Virginia University
Morgantown, WV 26506
Phone: 304-293-2882 • E-mail: yong-lak.park@mail.wvu.edu

EMPLOYMENT

Professor (2018-current).

Entomology Program, Division of Plant and Soil Sciences, West Virginia University.

Associate Professor (2012-current).

Entomology Program, Division of Plant and Soil Sciences, West Virginia University.

Assistant Professor (2006-2012).

Entomology Program, Division of Plant and Soil Sciences, West Virginia University.

Postdoctoral Research Associate, 2003-2006.

Department of Entomology, University of California, Riverside, California.

Graduate Research Assistant, 1999-2003.

Department of Entomology, Iowa State University, Ames, Iowa.

Graduate Research Assistant, 1995-1997.

Department of Agricultural Biology, Seoul National University, Korea.

Fire Support Officer, 1993-1995.

The Korea Army, Korea.

EDUCATION

Ph.D., Entomology, Iowa State University. 2003.

Dissertation: Corn rootworms (Coleoptera: Chrysomelidae) in space and time.

M.S., Agricultural Biology (Entomology major), Seoul National University, Korea. 1997.

Thesis: Assessment of damage caused by twospotted spider mite (Acari: Tetranychidae) feeding on cucumber in the glasshouse.

B.S., Agricultural Biology (Entomology major), Seoul National University, Korea. 1993.

Thesis: Summer season insect fauna of the Mountain Chogyae.

AREAS OF EXPERTISE

Integrated pest management

- Development of environment-friendly pest management programs (e.g. ecological and biological control strategies).
- Development of large-scale sampling and monitoring strategies.
- Areawide and site-specific pest management (precision agriculture).

Agricultural and forest entomology

- Insect population ecology in agroecosystem.
- Spatial interactions of insect pests with agronomic, climatic, and edaphic factors.
- Epidemiology of insect transmitted plant disease.
- Pollinator ecology and management.

Geospatial technology and spatial database management system

- Spatial analysis and modeling.
- Geographic information systems, global positioning systems, and remote sensing.
- Application of aerospace technology to pest management.
- Robotics for entomological research and insect management

GRANTS AWARDED

International Pollinator Project, 2018-2019.

- WVU Davis College Faculty Enhancement Grant

Citizen science project with bees, veterans, and WV citizens, 2018-2019.

- WVU Davis College C2D2 Program.
- WVU Faculty Senate Grant for Community Engagement

Implementation of Small Unmanned Aerial Systems for the Management of Invasive Plants in Eastern North America Using Biological Control, 2018-2021.

- USDA APHIS Farm Bill.

Tissue-Specific Engineering of Terpenes with Activity against Aphids in Cultivated Tomato, 2018-2019.

- USDA-NIFA Foundational Program.

Proximal and Remote Sensing of Alfalfa Canopies for Early Detection of Insect Pest Stress and Rapid Integrated Pest Management Decision-Making, 2017-2019.

- USDA-NIFA Alfalfa and Forage Research Program.

Implementation of Small Unmanned Aerial Systems for the Management of Invasive Plants in Eastern North America Using Biological Control, 2017-2020.

- USDA Forest Service.

Effects of Imidacloprid Treatment of Hemlocks on Aquatic Ecosystems: Is the cure worse than the disease?

- USGS/National Park Service Water Quality Partnership Program, 2017-2019.
- Program to Stimulate Competitive Research, West Virginia University, 2017.

An Areawide Biointensive Management Plan for Brown Marmorated Stink Bug to Reduce Impacts throughout the Agro-Urban Interface, 2016-2021.

- USDA-ARS Invasive Pests of Crops, Crop Production and Protection Programs

Development of Precision Pollinator Robot, 2016-2019.

- USDA-NIFA National Robotics Initiative.

Effects of Imidacloprid on Soil Microfauna within Riparian Hemlock Forests, 2016-2018.

- National Park Service.

Faculty Travel Grant, 2014, 2016, 2017

- WVU Faculty Senate Travel Grant.

Aerial monitoring of orchard pests using unmanned aerial system, 2015-2016.

- State Horticulture Association of Pennsylvania.

Development of International Research Project on Climate Change, 2015-2016.

- Davis College Faculty Enhancement Grant.

Development of Mobile Insect Zoo, 2015-2016

- Community Engagement Grant, WVU Faculty Senate.

Building Attract-and-Kill Systems for Management of Brown Marmorated Stink Bug in Apple Orchards, 2014-2017.

- Sustainable Agriculture Research and Education.

Effect of Climate Change on Multitrophic Interactions among Crops, Bees, and Pests, 2014-2015.

- USDA-NIFA Climate Change and Variability Initiative.

Development of Systems for Predicting Spatial Distribution of Stink Bugs using Geospatial Analysis, Sensing Technology, and Population Genetics, 2013-2015.

- National Academy of Agricultural Science, Korea.

Spatially-Targeted Pest Management Strategies Using Geospatial Technologies, 2013-2018.

- Hatch Project, West Virginia University.

Development of UAV/AAV Systems for Forest Insect Pest Management, 2011-2017.

- USDA Forest Service.

Organic Stink Bug Management through Research and Education, 2011-2017.

- USDA-NIFA Organic Research and Education Initiative.

Management of Brown Marmorated Stink Bugs on Specialty Crops in West Virginia, 2011-2014.

- USDA-WV Specialty Crop Block Grant Program.

Brown Marmorated Stink Bug Control in Fruit Orchard, 2011-2012.

- State Horticulture Association of Pennsylvania.

Early Detection of Invasive Species Using Geospatial and Aerospace Technologies, 2010-2014.

- Environmental Research Center, West Virginia University.

Attracting Generalist Natural Enemies Using Pheromones, 2010-2011.

- State Horticulture Association of Pennsylvania.

Educational Outreach with WVU Insect Zoo Programs, 2010-2011.

- WVU Grants for Public Service.

Extension Integrated Pest Management, 2009.

- USDA Extension Integrated Pest Management Coordination and Support Program.

Cacapon River Watershed Sediment and Nutrient Reduction Program for Farms, 2009-2013.

- USDA Natural Resources Conservation Service.

Landscape-Scale Detection of Pests Using Geospatial and Aerospace Technologies, 2008-2009.

- Program to Stimulate Competitive Research, West Virginia University.

Development of Spatially Targeted Pest Management Strategies Using Geospatial Technology, 2017-2012

- Hatch Project, West Virginia University.

Site-Specific Biological Control Using Pheromones, 2008-2009.

- Faculty Senate Grant at West Virginia University.

Teaching Grant: Development of Course Related to Insect Ecology, 2007-2008.

- Davis College at West Virginia University.

Imidacloprid Impact on Insect Fauna Associated with Eastern Hemlock, 2006-2010.

- USDA Forest Service.

Continued Development of IPM PIPE Risk Management, 2007-2009.

- USDA Cooperative Extension & North Carolina State University.

Epidemiological Analysis of the Pierce's Disease and Sharpshooters, 2004-2006.

- California Department of Food and Agriculture.

Development of Spatial Sampling Program for Pierce's Disease, 2004-2006.

- University of California Pierce's Disease Program.

Chasing Insect Populations with Positioning Systems, Information Systems, and Biosensors, 2002.

- Henry and Sylvia Richardson Research Incentive Grant, Iowa State University.

Mapping Insect Populations with Electroantennograms and Geographic Information Systems, 2002.

- Professional Advanced Grant for Research, Graduate College, Iowa State University.

PUBLICATIONS: JOURNAL ARTICLES & BOOK CHAPTERS

60. Lee, W., R. Guidetti, M. Cesari, T. D. Gariepy, **Y.-L. Park**, and Chang-Gyu Park. 2018. Genetic diversity of *Halyomorpha halys* (Hemiptera, Pentatomidae) in Korea and comparison with COI sequence datasets from East Asia, Europe, and North America. *Florida Entomologist* 101: 49-54.
59. Morrison III, W. R., B. R. Blaauw, B. D. Short, A. L. Nielsen, J. C. Bergh, G. Krawczyk, **Y.-L. Park**, B. Butler, A. Khimian, and T. C. Leskey. 2018. Successful management of *Halyomorpha halys* (Hemiptera: Pentatomidae) in commercial apple orchards with an attract-and-kill strategy. *Pest management science*. 75: 104-114.
58. Lee, E., Y. He, and **Y.-L. Park**. 2018. Effects of climate change on the phenology of *Osmia cornifrons*: implications for population management. *Climatic Change* 150: 1-13.
57. **Park, Y.-L.**, S. Gururajan, H. Thistle, R. Chandran, and R. Reardon. 2018. Aerial release of *Rhinoncomimus latipes* (Coleoptera: Curculionidae) to control *Persicaria perfoliata* (Polygonaceae) using an unmanned aerial system. *Pest Management Science*. 74: 141-148.
56. McKinney, M., J. J. Ahn, and **Y.-L. Park**. 2017. Thermal biology of *Osmia cornifrons* (Hymenoptera: Megachilidae) eggs and larvae. *Journal of Apicultural Research* 56(4): 421-429.
55. Turcotte, R. M., A. Lagalante, J. Jones, F. Cook, T. Elliott, A. A. Billings, and **Y.-L. Park**. 2017. Spatial and temporal distribution of imidacloprid within the crown of eastern hemlock. *Journal of Insect Science*, 17(1) doi:10.1093/jisesa/iew120.
54. Hamilton, G. C., J. J. Ahn, W. Bu, T. C. Leskey, A. L. Nielsen, **Y.-L. Park**, W. Rabitsch, and K. A. Hoelmer. 2017. *Halyomorpha halys* (Stål). In J. E. McPherson (ed.) *Invasive stink bugs and related species (Pentatomoidea): Biology, higher systematics, semiochemistry, and management*. CRC Press, Boca Raton, FL.
53. Morrison III, W. R., C. G. Park, B. Y. Seo, **Y.-L. Park**, H. G. Kim, K. B. Rice, D. Lee, and T. C. Leskey. 2017. Attraction of the invasive *Halyomorpha halys* in its native Asian range to traps baited with semiochemical stimuli. *Journal of Pest Science* 90: 1205-1217.
52. Park, C. G., S. Baek, S. Lee, and **Y.-L. Park**. 2016. Landscape-scale spatial dynamics of *Riptortus pedestris* (Hemiptera: Alydidae): Implications for areawide management. *Journal of Asia-Pacific Entomology* 19: 969-975.
51. Ahn, J. J., Y. Son, Y. He, E. Lee, and **Y.-L. Park**. 2016. Effects of temperature on development and voltinism of *Chaetodactylus krombeini* (Acari: Chaetodactylidae): Implications for climate change impacts. *PLoS ONE* 11(8): e0161319. doi:10.1371/journal.pone.0161319
50. Seo, B. Y., J. K. Jung, C. G. Park, S. G. Lee, and **Y.-L. Park**. 2016. Plant penetration activities by the flatid planthopper *Metcalfa pruinosa* (Hemiptera: Fulgoroidea): An EPG-histology analysis. *Journal of Applied Entomology* 140: 706-714.
49. **Park, Y.-L.** 2016. Aerial monitoring of orchard pests using unmanned aerial system. *Pennsylvania Fruit News* 95:1-4.
48. **Park, Y.-L.**, and J. H. Tak. 2015. Essential oils for arthropod pest management in agricultural production systems, pp. 61-70. In Preedy, V. R. (ed.) *Essential Oils in Food Production, Preservation, Flavour and Safety*. Academic Press/Elsevier, San Diego, CA.
47. Baek, S., A. E. Perez, R. M. Turcotte, J. B. White, F. Adedipe, and **Y.-L. Park**. 2015. Response of *Tenebrio molitor* (Coleoptera: Tenebrionidae) adults to potato: Implications for monitoring and sampling. *Journal of Stored Products Research* 60: 5-10.
46. Ahn, J. J., **Y.-L. Park**, C. Jung. 2014. Modeling spring emergence of *Osmia cornifrons* Radoszkowski (Hymenoptera: Megachilidae) females in Korea. *Journal of Asia-Pacific Entomology* 17: 901-905.
45. Baek, S., Y. Son, and **Y.-L. Park**. 2014. Temperature-dependent development and survival of *Podisus maculiventris* (Hemiptera: Pentatomidae): implications for mass rearing and biological control. *Journal of Pest Science* 87:331-340.

44. Gyawaly, S. and **Y.-L. Park**. 2013. Feeding Potential and Prey Acceptance of *Podisus maculiventris* (Hemiptera: Pentatomidae): Implications for Biological Pest Control. *Journal of Plant Biology and Soil Health* 1: 5.
43. Anderson, J. T., I. Florencia, F. L. Zilli, L. Montalto, M. R. Marchese, M. McKinney, and **Y.-L. Park**. 2013. Sampling and Processing Aquatic and Terrestrial Invertebrates in Wetlands, pp. 143-195. In J. T. Anderson and C. A. Davis (eds.) *Wetland Techniques: Volume 2: Organisms*. DOI 10.1007/978-94-007-6931-1_5, Springer Science.
42. McKinney, M. I., and **Y.-L. Park**. 2013. Distribution of *Chaetodactylus krombeini* (Acari: Chaetodactylidae) within *Osmia cornifrons* (Hymenoptera: Megachilidae) Nests: Implications for Population Management. *Experimental and Applied Acarology*. 60: 153-161.
41. McKinney, M. I., and **Y.-L. Park**. 2012. Nesting Activity and Behavior of *Osmia cornifrons* (Hymenoptera: Megachilidae) Elucidated Using Videography. *Psyche*. 2012: (814097) 1-7. doi:10.1155/2012/814097
40. Turcotte, R. M., M. A. Fajvan, T. Elliott, D. Snider, P. C. Tobin, **Y.-L. Park**. 2012. Effects of ice-storm damage on hardwood survival growth in Ohio. *Northern Journal of Applied Forestry*. 29(2): 53-59.
39. Adedipe, F., and **Y.-L. Park**. 2012. Effect of plant characteristics and within-plant distribution of prey on colonization efficiency of *Cryptolaemus montrouzieri* (Coleoptera: Coccinellidae) adults. *Psyche*. 2012: (503543) 1-5. doi:10.1155/2012/503543.
38. **Park, Y.-L.**, and M. M. McKinney, S. Baek, and V. Kondo. 2012. Effects of pesticides on brown marmorated stink bugs. *Pennsylvania Fruit News* 91: 1-4.
37. Biggs, A. R. and **Y.-L. Park**. 2012. Control of overwintering adult brown marmorated stink bug injury on John Boy peaches, 2011. *Arthropod Management Tests*. 37: B9.
36. Biggs, A. R. and **Y.-L. Park**. 2012. Control of overwintering adult brown marmorated stink bug injury on Gala and Ginger Gold apples, 2011. *Arthropod Management Tests*. 37: A2.
35. Biggs, A. R. and **Y.-L. Park**. 2012. Effect of Asana, Vydate, Brigade + Altacor, and four concentrations of Lannate on brown marmorated stink bug adults and nymphs, 2011. *Arthropod Management Tests*. 37: B10.
34. **Park, Y.-L.**, and S. Gyawaly. 2011. Generalist natural enemies to control insect pests in fruit orchards. *Pennsylvania Fruit News* 91: 61-65.
33. **Park, Y.-L.**, T. M. Perring, R. K. Krell, J. M. Hashim-Buckey, and B. L. Hill. 2011. Spatial Distribution of Pierce's Disease Related to Incidence, Vineyard Characteristics, and Surrounding Land Uses. *American Journal of Enology and Viticulture* 62: 229-238.
32. Adedipe, F., and **Y.-L. Park**. 2010. Visual and olfactory preference of *Harmonia axyridis* (Coleoptera: Coccinellidae) adults to various companion plants. *Journal of Asia-Pacific Entomology* 13: 319 - 323.
- 31 **Park, Y.-L.**, V. Kondo, J. White, T. West, B. McConnell, and T. McCutcheon. 2009. Nest-to-nest dispersal of *Chaetodactylus krombeini* (Acari: Chaetodactylidae) associated with *Osmia cornifrons* (Hymenoptera: Megachilidae). *Journal of Applied Entomology* 133: 174-180.
- 30 White, J. B., **Y.-L. Park**, T. P. West, and P. C. Tobin. 2009. Assessment of potential fumigants to control *Chaetodactylus krombeini* (Acari: Chaetodactylidae) associated with *Osmia cornifrons* (Hymenoptera: Megachilidae). *Journal of Economic Entomology* 102: 2090-2095.
- 29 White, J. B., **Y.-L. Park**, and Y.-S. Son. 2009. Temperature-dependent emergence of *Osmia cornifrons* (Hymenoptera: Megachilidae) adults. *Journal of Economic Entomology* 102: 2026-2032.
- 28 **Park, Y.-L.**, M. E. Ellsbury, R. K. Krell, J. J. Tollefson, L. P. Pedigo, and B W. French. 2007. Spatial variability in corn and soybean insect pests: Precision farming and insect pest management for the future, pp. 1-5, in *Site-Specific Management Guide 27*, International Plant Nutrition Institute, Norcoross, GA.

- 27 Nay, J. E., **Y.-L. Park**, T. M. Perring. **2007**. Effect of bunch sanitation on spatial distributions of abscised fruit and *Phycitine* moths (Lepidoptera: Pyralidae) in California date gardens. *Journal of Economic Entomology* 100: 1773-1780.
- 26 **Park, Y.-L.**, R. K. Krell, M. W. Carroll. **2007**. Theory, technology, and practice of site-specific insect pest management. *Journal of Asia-Pacific Entomology* 10: 89-101.
- 25 **Park, Y.-L.**, and J.-H. Lee. **2007**. Seasonal dynamics of economic injury levels for *Tetranychus urticae* Koch (Acari: Tetranychidae) on *Cucumis sativus* L. *Journal of Applied Entomology* 131: 588-592.
- 24 Krell, R. K., E. A. Boyd, J. E. Nay, **Y.-L. Park**, and T. M. Perring. **2007**. Mechanical and insect transmission of *Xylella fastidiosa* to *Vitis vinifera*. *American Journal of Enology and Viticulture* 58: 211-216.
- 23 **Park, Y.-L.**, T. M. Perring, R. Yacoub, D. Bartel, and D. Elms. **2006**. Spatial and temporal dynamics of overwintering *Homalodisca coagulata* (Hemiptera: Cicadellidae) adults. *Journal of Economic Entomology* 99: 1936-1942.
- 22 **Park, Y.-L.**, and J. J. Tollefson. **2006**. Development and economic evaluation of spatial sampling plans for corn rootworm (Coleoptera: Chrysomelidae) adults. *Journal of Applied Entomology* 130: 337-342.
- 21 **Park, Y.-L.**, and J. J. Tollefson. **2006**. Spatio-temporal distribution of corn rootworm (Coleoptera: Chrysomelidae) adults and their spatial association with environment. *Entomologia Experimentalis et Applicata* 120: 105-122.
- 20 **Park, Y.-L.**, T. M. Perring, R. K. Krell, C. A. Farrar, and C. Gispert. **2006**. Spatial distribution of Pierce's disease in the Coachella Valley: Implications for sampling. *American Journal of Enology and Viticulture* 57: 221-226.
- 19 **Park, Y.-L.**, and J. J. Tollefson. **2006**. Spatial distribution of corn rootworm (Coleoptera: Chrysomelidae) eggs and larvae: Implications for sampling. *Journal of the Kansas Entomological Society* 79: 129-135.
- 18 **Park, Y.-L.**, T. M. Perring, C. A. Farrar, and C. Gispert. **2006**. Spatial and temporal distribution of two sympatric *Homalodisca* spp. (Hemiptera: Cicadellidae) in the Coachella Valley: Implications for areawide pest management. *Agriculture Ecosystems and Environment* 113: 168-174.
- 17 Krell, R. K., T. M. Perring, C. A. Farrar, **Y.-L. Park**, and C. Gispert. **2006**. Intraplant sampling of grapevines for Pierce's disease diagnosis. *Plant Disease* 90: 351-357.
- 16 **Park, Y.-L.**, and R. K. Krell. **2005**. Generation of prescription maps for preventative and curative site-specific management of bean leaf beetles (Coleoptera: Chrysomelidae). *Journal of Asia-Pacific Entomology* 8: 375-380.
- 15 **Park, Y.-L.**, and J. J. Tollefson. **2005**. Characterization of the spatial dispersion of corn root injury by corn rootworms (Coleoptera: Chrysomelidae). *Journal of Economic Entomology* 98: 378-383.
- 14 **Park, Y.-L.**, and J. J. Tollefson. **2005**. Spatial prediction of corn rootworm (Coleoptera: Chrysomelidae) adult emergence. *Journal of Economic Entomology* 98: 121-128.
- 13 Oleson, J. D., **Y.-L. Park**, T. M. Nowatzki, and J. J. Tollefson. **2005**. Node-injury scale to evaluate corn rootworm injury. *Journal of Economic Entomology* 98: 1-8.
- 12 **Park, Y.-L.**, and J.-H. Lee. **2005**. Impact of twospotted spider mite (Acari: Tetranychidae) on growth and productivity of glasshouse cucumbers. *Journal of Economic Entomology* 98: 457-463.
- 11 **Park, Y.-L.**, and J. J. Obrycki. **2004**. Spatio-temporal distribution of lady beetles (Coleoptera: Coccinellidae) and aphids (Homoptera: Aphididae) in Iowa cornfields. *Biological Control* 31: 210-217.
- 10 Oleson, J. D., **Y. Park**, and J. J. Tollefson. **2004**. Evaluation of soil insecticides for control of seed corn maggot, 2003. *Arthropod Management Tests* 29: F37.
- 9 Oleson, J. D., **Y. Park**, and J. J. Tollefson. **2004**. Evaluation of soil insecticides for control of corn rootworm larvae, 2003. *Arthropod Management Tests* 29: F36.

- 8 Oleson, J. D., T. A. Wilson, **Y. Park**, and J. J. Tollefson. **2003**. Evaluation of soil insecticides for control of corn rootworm larvae, 2002. Arthropod Management Tests 28.
- 7 Oleson, J. D., T. A. Wilson, **Y. Park**, and J. J. Tollefson. **2003**. Evaluation of soil insecticides for control of seedcorn maggot, 2002. Arthropod Management Tests 28.
- 6 **Park, Y.-L.**, and J. D. Bradshaw. **2003**. Insect origami: Into the fold. American Entomologist 49: 210-214.
- 5 **Park, Y.-L.**, and J.-H. Lee. **2002**. Leaf cell and tissue damage of cucumber, *Cucumis sativus*, caused by two-spotted spider mite, *Tetranychus urticae* (Acari: Tetranychidae). Journal of Economic Entomology 95: 952-957.
- 4 Oleson, J. D., T. M. Nowatzki, T. A. Wilson, **Y. Park**, and J. J. Tollefson. **2002**. Evaluation of soil insecticides for control of corn rootworm larvae, 2001. Arthropod Management Tests 27.
- 3 Oleson, J. D., T. M. Nowatzki, T. A. Wilson, **Y. Park**, and J. J. Tollefson. **2001**. Field corn, wireworm larval control, 2000. Arthropod Management Tests 26.
- 2 Oleson, J. D., T. M. Nowatzki, T. A. Wilson, **Y. Park**, and J. J. Tollefson. **2001**. Seed corn maggot control, 2000. Arthropod Management Tests 26.
- 1 Oleson, J. D., T. M. Nowatzki, T. A. Wilson, **Y. Park**, and J. J. Tollefson. **2001**. Corn rootworm larval control, 2000. Arthropod Management Tests 26.

SELECTED PRESENTATIONS SINCE 2006

- 121 **Park, Y.-L.** **2018**. Detecting Insects from the Sky: Satellites to Drones. Annual Meeting of Entomological Society of America. Vancouver, Canada.
- 120 **Larcenaire, C., R. Turcotte, M. Gutensohn and Y.-L. Park.** **2018**. Investigating the insect pollinator assemblages of black cherry (*Prunus serotina*) flowers in the Allegheny National Forest. Annual Meeting of Entomological Society of America. Vancouver, Canada.
- 119 **Boyd, B. M. Marquez, Y.-L. Park, and J. Nay.** **2018**. Living on the edge: spatial distributions of codling moth, *Cydia pomonella* (L.), trap captures in English walnuts. Annual Meeting of Entomological Society of America. Vancouver, Canada.
- 118 **Park, Y.-L.** **2018**. Pollinator robot. Korean Apicultural Society annual conference. Gwangju, South Korea.
- 117 **Park, Y.-L.** **2018**. Bug bombs for biological weed control using natural enemy insects. Korean Applied Entomological Society annual conference. Mokpo, South Korea.
- 116 **Park, Y.-L.** **2018**. Pest detection using unmanned aerial systems. Department of Plant Protection, National Institute of Agricultural Sciences, Wanju, South Korea.
- 115 **Park, Y.-L.** **2018**. Pest forecast and mitigation systems in the United States. Symposium on pest forecast and management. Plenary speaker for symposium. Rural Development Administration of Korea, Wanju, South Korea.
- 114 **Park, Y.-L.** **2018**. Effects of climate change on *Osmia* bees and their parasites. National Institute of Horticultural and Herbal Science. Jeju, South Korea.
- 113 **Park, Y.-L.** **2018**. Mason bees for alternative pollinator. Incheon National University. Incheon, South Korea.
- 112 **Park, Y.-L.** **2018**. Precision pollinator robots. Chungbuk National University. Cheongju, South Korea.

- 111 **Park, Y.-L. 2018.** Use of unmanned aerial systems for pest management. Andong National University. Andong, South Korea.
- 110 **Park, Y.-L. 2018.** U.S. quarantine system for invasive species detection and management. National Quarantine Service, South Korea.
- 109 **Park, Y.-L. 2018.** Unmanned aerial systems for entomological research. Agricultural Technology Center. Iksan, South Korea.
- 108 **Park, Y.-L. 2018.** Solitary bees for pollination service. Department of Beneficial Insect Research. National Institute of Agricultural Sciences. Wanju, South Korea.
- 107 **Park, Y.-L. 2018.** Remote sensing as a tool for invasive species detection and management. National Institute of Ecological Research. Seochon, South Korea.
- 106 **Park, Y.-L. 2018.** Fire blight detection using unmanned aerial systems. Seoul Branch, National Quarantine Service. Anseong, South Korea.
- 105 **Park, Y.-L. 2017.** Effects of climate change on pollination. West Virginia Master Gardeners Conference, Stonewell Resort Park, WV.
- 104 **Park, Y.-L. 2017.** Development of pollinator robot. Annual Meeting of West Virginia Entomological Society, North Band State Park, WV.
- 103 **Lee, H.S. and Y.-L. Park. 2017.** Spatial and temporal asynchrony between spring emergence of *Osmia cornifrons* (Hymenoptera: Megachilidae) and blueberry blooming in the eastern United States. Annual Meeting of Eastern Branch Entomological Society of America, Newport, RI.
- 102 **Moredock, J. and Y.-L. Park. 2017.** A novel method of quantifying *Rhinoncomimus latipes* (Coleoptera: Curculionidae) feeding upon *Persicaria perfoliata* (Caryophyllales: Polygonaceae). Annual Meeting of Eastern Branch Entomological Society of America, Newport, RI.
- 101 **Park, Y.-L. 2017.** Areawide management of brown marmorated stink bug. BMSB Working Group Meeting, Winchester, VA.
- 100 **Park, Y.-L. 2017.** Pollinator robot inspired by structure and behavior of *Osmia* bees. Annual Meeting of Entomological Society of America, Denver, CO.
- 99 **Seo, B. Y., J. K. Jung, J. Lee, J. Choe, and Y.-L. Park. 2017.** Transcriptomic analysis on different developmental stages of *Laodelphax striatellus* (Delphacidae: Hemiptera). Annual Meeting of Entomological Society of America, Denver, CO.
- 98 **Moredock, J. T. and Y.-L. Park. 2017.** A novel method of quantifying *Rhinoncomimus latipes* (Coleoptera: Curculionidae) feeding upon *Persicaria perfoliata* (Caryophyllales: Polygonaceae). Annual Meeting of Entomological Society of America, Denver, CO.
- 97 **Park, Y.-L. 2017.** Transdisciplinary bee research: trials, errors, and accomplishments since 2006. Division of Plant and Soil Sciences, West Virginia University, Morgantown, WV.
- 96 **Park, Y.-L. 2017.** Use of aerospace engineering for medically-important pest management. West Virginia Medical Entomology Working Group. Buckhannon, WV.
- 95 **Park, Y.-L. 2016.** Drones for pest management inspired by engineering. Entomology Seminar Series, West Virginia University, Morgantown, WV.
- 94 **Park, Y.-L. 2016.** Predatory stink bugs for biological control: ecology in the U.S.A. and introduction to South Korea. National Academy of Agricultural Science, Rural Development Administration, Wanju, South Korea.
- 93 **Park, Y.-L., B. Y. Seo, and C. G. Park. 2016.** The spined soldier bug (Hemiptera: Pentatomidae): A recently introduced predatory stink bug to South Korea from U.S.A. 2016 KSAE Spring Meeting and International Symposium on Insect Evolution and Pest Management. Jeju, South Korea.

- 92 Moredock, J., B. Y. Seo, C. G. Park, and **Y.-L. Park**. 2016. The spined soldier bug (Hemiptera: Pentatomidae): potential biological control agent against brown marmorated stink bugs (Hemiptera: Pentatomidae). 2016 KSAE Spring Meeting and International Symposium on Insect Evolution and Pest Management. Jeju, South Korea.
- 91 **Park, Y.-L.** 2016. Spatial movement of BMSB in agricultural systems. XXV International Congress of Entomology, Orlando, FL.
- 90 **Park, Y.-L.**, and J. T. Goldner. 2016. Spatial and temporal patterns of brown marmorated stink bug movement in an urban landscape. Annual Meeting of Eastern Branch Entomological Society of America, Philadelphia, PA.
- 89 Seo, B., J. K. Jung, C. G. Park, and **Y.-L. Park**. 2015. Stylet penetration pattern and feeding activities of *Metcalfa pruinosa* (Say) (Hemiptera: Flatidae) on *Hibiscus syriacus* L. (Malvaceae). Annual Entomological Society of America Meeting, Minneapolis, MN.
- 88 Moredock, J., and **Y.-L. Park**. 2015. Biological control of *Halyomorpha halys* (Hemiptera: Pentatomidae) using *Podisus maculiventris* (Hemiptera: Pentatomidae). Annual Entomological Society of America Meeting, Rehoboth Beach, DE.
- 87 Goldner, J., and **Y.-L. Park**. 2015. Whole-farm spatial dynamics of *Halyomorpha halys* (Hemiptera: Pentatomidae) in organic farming systems. Annual Entomological Society of America Meeting, Rehoboth Beach, DE.
- 86 **Park, Y.-L.** 2015. Bug Recon and Bug Bomb: Drones for IPM. Annual Entomological Society of America Meeting, Rehoboth Beach, DE.
- 85 **Park, Y.-L.** 2015. Development of systems for predicting spatial distribution of stink bugs using geospatial analysis, sensing technology, and population genetics. Department of Insect Pest Management, National Academy of Agricultural Science, Rural Development Administration, Wanju, South Korea.
- 84 **Park, Y.-L.** 2015. Bug bombs and UAVs. Department of Biological Education, Chon-Buk National University, Chonju, South Korea.
- 83 **Park, Y.-L.** 2015. Detection and management of forest insect pests using unmanned aerial vehicles. Division of Forest Pest Management, Korea Forest Research Institute, Seoul, South Korea.
- 82 **Park, Y.-L.** 2015. Effects of temperature on multitrophic interactions among crop, pollinators, and their parasitic mites. Climate Change Research Center, National Institute of Horticultural and Herbal Science, Cheju, South Korea.
- 81 **Park, Y.-L.** 2015. Aerial monitoring and management of insects and weeds using unmanned vehicles. Appalachian Grazing Conference, West Virginia University, Morgantown, WV.
- 80 **Park, Y.-L.** 2015. Robotics and sensors - Examples from the field. 8th International Integrated Pest Management Symposium, Salt Lake City, UT.
- 79 **Park, Y.-L.** 2015. Precision detection and control of pests using unmanned aerial vehicles. Annual Entomological Society of America Meeting, Minneapolis, MN.
- 78 **Park, Y.-L.** 2015. Whole-farm movement of brown marmorated stink bugs. OREI Stink Bug Working Group. Rutgers University Experiment Station, Vineland, NJ.
- 77 **Park, Y.-L.** 2015. Aerial detection of invasive pests using drones. West Virginia Invasive Species Working Group Meeting. Wesleyan College, Buchanan, WV.
- 76 **Park, Y.-L.** 2015. Effect of climate change on multitrophic interactions among crops, bees, and pests. NIFA PI Conference, Washington D.C.
- 75 **Park, Y.-L.**, M. I. McKinney, and J. Goldner. 2015. International Research Development and Collaboration with South Korea. Davis College, West Virginia University, Morgantown, WV.
- 74 Goldner, J. and **Y.-L. Park**. 2015. Landscape-level spatial dynamics of *Halyomorpha halys* (Hemiptera: Pentatomidae) in organic farm systems. Annual Entomological Society of America Meeting, Minneapolis, MN.

- 73 Goldner, J., and **Y.-L. Park. 2015.** Whole-farm spatial dynamics of *Halyomorpha halys* (Hemiptera: Pentatomidae) in organic farming systems. Student Research and Creative Scholarship Day, West Virginia University, Morgantown, WV.
- 72 **Park, Y.-L. 2014.** Brown marmorated bugs in Korea: rearing, historical occurrence, and current status. BMSB Working Group Meeting, Winchester, VA.
- 72 **Park, Y.-L. 2014.** Spatially-targeted pest management using geospatial and aerospace technology. Departmental Seminar Series. Kansas State University, Manhattan, KS.
70. **Park, Y.-L. 2014.** Landscape-scale spatial relationships between sharpshooters and Pierce's disease. Annual Entomological Society of America Meeting, Portland, OR.
- 69 Ahn, J., C. G. Park, and **Y.-L. Park. 2014.** Spatial distribution of brown marmorated stink bug (Hemiptera: Pentatomidae) in cornfield: Implications for sampling. Annual Entomological Society of America Meeting, Portland, OR.
- 68 Goldner, J., and **Y.-L. Park. 2014.** Seasonal movement of *Halyomorpha halys* (Hemiptera: Pentatomidae) in organic farming systems. Annual Entomological Society of America Meeting, Portland, OR.
- 67 Baek, S., and **Y.-L. Park. 2014.** Spatial and temporal associations between hemlock woolly adelgids (Hemiptera: Adelgidae) and surrounding environment). Annual Entomological Society of America Meeting, Portland, OR.
- 66 Son, Y., J. J. Ahn, and **Y.-L. Park. 2014.** Temperature-dependent development of *Chaetodactylus krombeini* (Acari: Chaetodactylidae) associated with *Osmia* spp. (Hymenoptera: Megachilidae). Annual Entomological Society of America Meeting, Portland, OR.
- 65 McKinney, M. M., and **Y.-L. Park. 2014.** Standardizing bee sampling protocols using geostatistics. Annual Entomological Society of America Meeting, Portland, OR.
- 64 **Park, Y.-L. 2014.** Brown marmorated stink bug in North America. European Congress of Entomology. York, UK.
- 63 **Park, Y.-L. 2014.** Bug-Killing Bug: Potential of *Podisus maculiventris* (Hemiptera: Pentatomidae) to Control *Halyomorpha halys* (Hemiptera: Pentatomidae). Entomological Society of America Branch Meeting, Williamsburg, VA.
- 62 McKinney, M. M., and **Y.-L. Park. 2014.** Distribution of *Monodontomerus* spp. (Hymenoptera: Torymidae) in nests of *Osmia cornifrons* (Hymenoptera: Megachilidae). Entomological Society of America Branch Meeting, Williamsburg, VA.
- 61 Ahn, J., and **Y.-L. Park. 2014.** Development of sampling plans for brown marmorated stink bugs on corn. Entomological Society of America Branch Meeting, Williamsburg, VA.
- 60 Park, C., J. J. Ahn, and **Y.-L. Park. 2014** Brown marmorated stink bugs in Korea: insight from historical and current data. Entomological Society of America Branch Meeting, Williamsburg, VA.
- 59 Baek, S., and **Y.-L. Park. 2014.** Spatial distribution and population dynamics of hemlock woolly adelgids (Hemiptera: Adelgidae). Entomological Society of America Branch Meeting, Williamsburg, VA.
- 58 Goldner, J., S. Baek, M. McKinney, and **Y.-L. Park. 2014.** Non-target effects of organic insecticides on *Podisus maculiventris* (Hemiptera: Pentatomidae). Entomological Society of America Branch Meeting, Williamsburg, VA.
- 57 **Park, Y.-L. 2013.** Spatially-targeted pest management. National Academy of Agricultural Science, Rural Development Administration, Suwon, South Korea.
- 56 **Park, Y.-L. 2013.** Forest pest management using aerospace technology. National Forestry Research Institute, Korea Forest Service, Seoul, South Korea.

- 55 **Park, Y.-L. 2013.** Collaborative Pest Survey in West Virginia. West Virginia Entomological Society Annual Meeting. North Bend State Park, West Virginia.
- 54 **Park, Y.-L., M. I. McKinney, and J. B. White. 2013.** Impact, dispersal, and management of cleptoparasitic *Chaetodactylus mites* (Acari: Chaetodactylidae) associated with *Osmia* bees (Hymenoptera: Megachilidae). Invited symposium, host by Raul Villanueva. National Entomological Society of America Annual Meeting. Austin, TX.
- 53 **Park, Y.-L., and S. Gururajan. 2013.** Shooting insects from the sky: Aerial delivery of natural enemies using aerospace engineering. National Entomological Society of America Annual Meeting. Austin, TX.
- 52 **McKinney, M. I., and Y.-L. Park. 2013.** Distribution of *Chaetodactylus krombeini* (Acari: Chaetodactylidae) in nests of *Osmia cornifrons* (Hymenoptera: Megachilidae). Eastern Branch Entomological Society of America Annual Meeting. Lancaster, PA.
- 51 **Baek, S., Y. Son, and Y.-L. Park. 2013.** Modeling temperature-dependent development and survival of *Podisus maculiventris* (Hemiptera: Pentatomidae): Implications for biological control. Eastern Branch Entomological Society of America Annual Meeting. Lancaster, PA.
- 50 **Park, Y.-L., S. Baek, and M. I. McKinney. 2013.** Spatial and temporal movement of brown marmorated stink bugs in urban environment. Eastern Branch Entomological Society of America Annual Meeting. Lancaster, PA.
- 49 **Baek, S., and Y.-L. Park. 2013.** Spatial distribution of hemlock woolly adelgid (Hemiptera: Adelgidae) ovisacs within eastern hemlock. National Entomological Society of America Annual Meeting. Austin, TX.
- 48 **McKinney, M. I., and Y.-L. Park. 2013.** Within-nest distribution of *Mondontomerus* spp. (Hymenoptera: Torymidae): Impact on *Osmia cornifrons* (Hymenoptera: Megachilidae) propagation for pollination. National Entomological Society of America Annual Meeting. Austin, TX.
- 47 **predator of brown marmorated stink bug (Hemiptera: Pentatomidae).** National Entomological Society of America Annual Meeting. Austin, TX.
- 46 **Baek, S., M. I. McKinney, J. Goldner, C. Park, B. Seo, and Y.-L. Park. 2013.** Non-target effects of organic insecticides on *Podisus maculiventris* (Hemiptera: Pentatomidae). National Entomological Society of America Annual Meeting. Austin, TX.
- 45 **Park, Y.-L. 2013.** Whole-farm movement of brown marmorated stink bugs. Brown Marmorated Stink Bug Working Group meeting. Vineland, NJ.
- 44 **Park, Y.-L. 2013.** Collaborative West Virginia Pest Survey. WV Invasive Species Working Group meeting. Elkins, WV.
- 43 **Park, Y.-L. 2013.** Aerial Survey and Management of Invasive Pests Using Aerospace Technology. Potomac Watershed Partnership Working Group Information Exchange. Front Royal, VA.
- 42 **Park, Y.-L. 2012.** Aerial delivery of biological control agents using unmanned aerial vehicles. National Entomological Society of America Annual Meeting. Knoxville, TN.
- 41 **Park, Y.-L. 2012.** Effects of host range, mobility, and surrounding environment on spatial dynamics and movement of insect pests. International Congress of Entomology, Daegu, Korea.
- 40 **Park, Y.-L. 2012.** Identification of beneficial and pest insects. Delaware State University Cooperative Extension Service. Dover, Delaware.
- 39 **Baek, S., and Y.-L. Park. 2012.** Spatial distribution of hemlock woolly adelgid (Hemiptera: Adelgidae) ovisacs within eastern hemlock tree: Implications for sampling. National Entomological Society of America Annual Meeting. Knoxville, TN.

- 38 Baek, S., M. I. McKinney, and **Y.-L. Park. 2012.** Attracting beneficial insects in apple orchard by using cowpea as a cover crop. National Entomological Society of America Annual Meeting. Knoxville, TN.
- 37 McKinney, M. I., and **Y.-L. Park. 2012.** Optimizing sampling for bee communities using bee bowls. National Entomological Society of America Annual Meeting. Knoxville, TN.
- 36 **Park, Y.-L. 2011.** Current trends in insect ecology and pest management in the United States. National Entomological Society of America Annual Meeting. Reno, Nevada (invited symposium).
- 35 **Park, Y.-L. 2011.** Roles of international students: entomological and cultural ambassadors. International student. National Entomological Society of America Annual Meeting. Reno, Nevada (invited symposium).
- 34 **Park, Y.-L. 2011.** On-farm movement of brown marmorated stink bugs. OREI Brown Marmorated Stink Bug Group Meeting. Beltsville, Maryland (invited).
- 33 **Park, Y.-L. 2011.** Brown marmorated stink bugs in South Korea. Brown Marmorated Stink Bug Working Group Meeting. Biglerville, Pennsylvania (invited).
- 32 **Park, Y.-L. 2010.** Tollefson, the transformation (1995-present): Late-career contributions to corn rootworm research. National Entomological Society of America Annual Meeting. San Diego, California.
- 31 **Park, Y.-L., and Gururajan, S. 2010.** Insects seen through unmanned aerial vehicles: What insects can we see from the sky? National Entomological Society of America Annual Meeting. San Diego, California.
- 30 Varghees, V., and **Y.-L. Park. 2010.** Spatial distribution of squash bugs (Hemiptera: Coreidae) in pumpkin fields. National Entomological Society of America Annual Meeting. San Diego, California.
- 29 Gyawaly, S., and **Y.-L. Park. 2010.** Feeding behavior of spined soldier bugs (Hemiptera: Pentatomidae) on smooth, hairy and coleopteran larvae. National Entomological Society of America Annual Meeting. San Diego, California.
- 28 McKinney, M., and **Y.-L. Park. 2010.** Temperature-dependent development in *Osmia cornifrons*. National Entomological Society of America Annual Meeting. San Diego, California.
- 27 **Park, Y.-L. 2010.** Brown marmorated stink bug control. West Virginia Extension Service Annual Meeting. Jackson's Mill, Weston, West Virginia.
- 26 **Park, Y.-L. 2010.** UAV's and their potential role in detection of forest insects. CFHP State Cooperator's Meeting. Elkins, West Virginia.
- 25 **Park, Y.-L., and Gururajan, S. 2010.** Detection of insects using remote controlled aircraft. Entomological Society of America Eastern Branch Meeting. Baltimore, Maryland.
- 24 Varghees, V., and **Y.-L. Park. 2010.** Wilting of cucurbit plants in seedling stage due to squash bug (Hemiptera: Coreidae) adult feeding. Entomological Society of America Eastern Branch Meeting. Baltimore, Maryland.
- 23 Gyawaly, S., and **Y.-L. Park. 2010.** Feeding preference of spined soldier bugs (Hemiptera: Pentatomidae) on mealworms (Coleoptera: Tenebrionidae). Entomological Society of America Eastern Branch Meeting. Baltimore, Maryland.
- 23 McKinney, M., and **Y.-L. Park. 2010.** Ecology of pollen mites associated with Japanese hornfaced bees (Hymenoptera: Megachilidae). Entomological Society of America Eastern Branch Meeting. Baltimore, Maryland.
- 22 **Park, Y.-L. 2010.** Turf insect pest management: insect pest monitoring and detection methods. Lawn Care Association of PA, Pittsburgh, Pennsylvania.
- 21 **Park, Y.-L. 2009.** Spatial ecology of insects and spatially-targeted pest management strategies. Biology Department, West Virginia University, Morgantown, West Virginia.

- 20 **Park, Y.-L. 2009.** Applications of unmanned aerial vehicles to pest management. Entomological Society of America Eastern Branch Meeting. Harrisburgh, Pennsylvania.
- 19 **Park, Y.-L. 2009.** Monitoring insect pests on trees and shrubs. Ornamental and Turf Recertification Workshop. Morgantown, West Virginia.
- 18 Adedipe, F. and **Y.-L. Park. 2009.** Attraction of *Harminia axyridis* using attractant plants. Entomological Society of America Eastern Branch Meeting. Harrisburgh, Pennsylvania.
- 17 **Park, Y.-L. 2008.** Insect Pest Management with Geospatial Technology. Entomology Department, Seoul National University, Seoul, South Korea.
- 16 **Park, Y.-L. 2008.** Insect and Origami: Challenging insect wing folding mechanisms with origami. Entomology Department, Seoul National University, Seoul, South Korea.
- 15 **Park, Y.-L. 2008.** *Osmia cornifrons* Management in the United States of America. National Academy of Agricultural Science, Rural Development Administration of South Korea. Suwon, South Korea.
- 14 **Park, Y.-L. 2008.** Site-Specific Insect Pest Management with Geospatial Technology. Entomology Department, Andong National University. Andong, South Korea.
- 13 **Park, Y.-L. 2008.** Applications of aerospace technology to pest management. National Entomological Society of America Meeting. Reno, Nevada.
- 12 **Park, Y.-L., and V. Kondo. 2008.** Nest-to-nest dispersal of *Chaetodactylus krombeini* (Acari: Chaetodactylidae) associated with *Osmia cornifrons* (Hymenoptera: Megachilidae). National Entomological Society of America Meeting. Reno, Nevada.
- 11 White, J. B., and **Y.-L. Park. 2008.** Modeling temperature-dependent diapause termination of Japanese hornfaced bee (Hymenoptera: Megachilidae) adults. Entomological Society of America Eastern Branch Meeting. Syracuse, New York.
- 10 **Park, Y.-L. 2008.** Development and evaluation of spatial sampling plans for mapping insect distributions. Entomological Society of America Eastern Branch Meeting. Syracuse, New York.
- 9 **Park, Y.-L., J. Baniecki, E. Dabaan, T. M. Perring, and Rady Krell. 2007.** Spatial monitoring and detection of Pierce's disease of grapevines and bacterial leaf scorch of shade trees. National Plant Diagnostic Network Meeting. Orlando, Florida.
- 8 **Park, Y.-L. 2007.** Spatial interactions between aphids and lady beetles. Entomological Society of America Eastern Branch Meeting. Harrisburg, Pennsylvania.
- 7 White, J. B. and **Y.-L. Park 2007.** Temperature-dependant diapause termination of hornfaced bee (Hymenoptera: Megachilidae). Entomological Society of America Eastern Branch Meeting. Harrisburg, Pennsylvania.
- 6 **Park, Y.-L. 2007.** Insect pest management with geospatial technology. Department of Plant, Soil, and Insect Sciences, University of Massachusetts. Amherst, Massachusetts. Invited Department Seminar supported by C.P. Alexander fund and the Department of Plant, Soil, and Insect Sciences of University of Massachusetts.
- 5 **Park, Y.-L. T. M. Perring, J. M. Hashim, R. K. Krell, and B. L. Hill. 2007.** Spatial distribution of Pierce's disease related to incidence and surrounding land uses. National Entomological Society of America Meeting. San Diego, California.
- 4 **Park, Y.-L. 2007.** Challenging insect wing-folding mechanism with origami. National Entomological Society of America Meeting. San Diego, California.
- 3 **Park, Y.-L. 2006.** Tracking insect populations with modern technologies. National Meeting of the Entomological Society of America. Indianapolis, Indiana.
- 2 **Park, Y.-L., and T. M. Perring. 2006.** Spatial and temporal dynamics of overwintering *Homalodisca coagulata* (Hemiptera: Cicadellidae) adults. National Meeting of the Entomological Society of America. Indianapolis, Indiana.
- 1 **Park, Y.-L. 2006.** Spatially targeted pest management with technological advances. USDA Forest Services, Morgantown, West Virginia.

GRADUATE STUDENT ADVISING AT WEST VIRGINIA UNIVERSITY**Former Graduate Students**

David Gardner, M.S. degree in 2007 (Member of committee)
Joseph White, M.S. degree in 2008 (Chair of committee)
Oluwatosin Adedipe, Ph.D. degree in 2008 (Member of committee)
Hans Straight, M.S. degree in 2009 (Member of committee)
Folukemi Adedipe, M.S. degree in 2009 (Chair of committee)
William Ayersman, M.S. degree in 2010 (Member of committee)
Jonathan Hulse, M.S. degree in 2010 (Member of committee)
Sudan Gyawaly, M.S. degree in 2011 (Chair of committee)
Matthew McKinney, M.S. degree in 2011 (Chair of committee)
Sunghoon Baek, M.S. degree in 2015 (Chair of committee)
Alison Anderson, Ph.D. degree in 2015 (Member of committee)
Robert Voshell, M.S. degree in 2015 (Member of committee)
Richard Turcotte, Ph.D. degree in 2016 (Chair of committee)
Matthew McKinney, Ph.D. degree in 2016 (Chair of committee)
David McCann, Ph.D. degree in 2016 (Member of committee)
Jakob Goldner, M.S. degree in 2016 (Chair of committee)
Erin Thayer, M.S. degree in 2016 (Member of committee)
Kristen Wickert, M.S. degree in 2016 (Member of committee)
Hyoseok Lee, Ph.D. student in 2017 (Chair of committee, Transferred)
James Wilson, M.S. degree in 2018 (Member of committee)
Matt Quintero, M.S. degree in 2018 (Member of committee)
Emily Brogan, M.S. degree in 2018 (Member of committee)

Current Graduate Students

Braley Burke, M.S. student (Chair of committee)
Jaewon Kim, M.S. student (Chair of committee)
Craig Larcenaire, M.S. student (Chair of committee)
John Moredock, M.S. student (Chair of committee)
Sandy Simon, Ph.D. student (Member of committee)
Fumin Wang, Ph.D. student (Member of committee)
Matt Berger, M.S. student (Member of committee)
Logan Zeigler, M.S. student (Member of committee)
Lenza Paul, M.S. student (Member of committee)
Sara Crayton, M.S. student (Member of committee)

Awards Recipient Graduate Students under My Supervision

- Folukemi Adedipe, 2009: Presentation award from Entomological Society of America Conference
- Folukemi Adedipe, 2010: A.D. Hopkins Scholarship, West Virginia University
- Sudan Gyawaly, 2010: Presentation award from Entomological Society of America Conference
- Sudan Gyawaly, 2011: A.D. Hopkins Scholarship, West Virginia University
- Matthew McKinney, 2011: Presentation award from the Davis College Graduate Student Research Day
- Sunghoon Baek, 2012: Presentation award from Entomological Society of America Conference
- Matthew McKinney, 2012: Presentation award from Entomological Society of America Conference
- Matthew McKinney, 2012: A.D. Hopkins Scholarship, West Virginia University
- Sunghoon Baek, 2013: A.D. Hopkins Scholarship, West Virginia University
- Matthew McKinney and Jakob Goldner, 2015: Joseph Weaver's Graduate Student Travel Award, West Virginia University
- John Moredock, 2015: Presentation award from Entomological Society of America Conference
- Jakob Goldner, 2015: Presentation award from the Davis College Graduate Student Research Day
- John Moredock, 2016: A.D. Hopkins Scholarship, West Virginia University
- John Moredock, 2017: Joseph Weaver's Graduate Student Travel Award, West Virginia University

UNDERGRADUATE STUDENT ADVISING FOR RESEARCH

Summer Research Undergraduate Experience (SURE) Program by Honors College

- Patrick Joyce, 2007
- William Lewis, 2008
- Adrya Webb, 2009
- John Moredock, 2014

Research Experience for Undergraduates (REU) Program by National Science Foundation

- Ariel Diliberto, Vassar College (NY), 2009

Research Internships

- Allie Brabham, WVU, 2017
- Tyler Sylevester, WVU, 2017
- Jamie Sauders, WVU, 2017
- Dixie Green, WVU, 2014-2016
- Adrea Landis, WVU, 2014-2016
- John Moredock, WVU, 2013-2014
- Zane Mikesell, WVU, 2012-2015
- Jakob Goldner, WVU, 2011-2012
- Catlin Carrico, WVU, 2011-2012
- Emily Smith, WVU, 2010-2012

TEACHING AT WEST VIRGINIA UNIVERSITY

Graduate course, ENTO593A *Special Topic: Invasive Pest Ecology*, 2016.

- Study-abroad field-trip course.
- Emphasis on ecology and management of invasive pests in their origin.

Graduate course, ENTO793L *Special Topic: Advanced Aquatic Entomology*, 2015.

- 2-hour lecture and 2-hour laboratory course.
- Emphasis on diversity and ecology of aquatic insects.

Graduate course, ENTO793K *Special Topic: Insect Evolution*, 2014.

- 2-hour lecture course.
- Emphasis on evolution of insect body parts and chronological events.

Graduate course, ENTO793J *Special Topic: Geostatistical Analysis with Ecological Data*, 2013.

- 2-hour lecture course.
- Emphasis on geostatistical analysis on entomological data.

Graduate course, ENTO593A *Special Topic: Experiments and Data Process in Research*, 2008.

- 2-hour lecture course.
- Emphasis on practical statistics on entomological research.

Graduate course, ENTO593B *Special Topic: Data Reporting and Journal Writing*, 2009.

- 2-hour lecture course.
- Emphasis on enhancing knowledge and skill of data reporting and scientific writing.

Graduate course, ENTO593C *Special Topic: Insect Physiology*, 2010 and 2018

- 3-hour lecture course.
- Emphasis on structure and function of insects

Graduate course, ENTO591A *Advanced Topic: Invasive Pest Ecology*, 2016.

- 2-week international field trip.
- Emphasis on ecology of invasive insects in their origin country

Graduate course, PLSC593B *Special Topic: Scientific Manuscript Writing and Revision*, 2010-2012.

- 2-hour lecture course.
- Emphasis on manuscript writing, revision, and review

Graduate course, ENTO790 *Teaching Practicum*, 2007-present.

- 1-hour seminar course.
- Emphasis on enhancing teaching skills and experience.

Graduate course, ENTO796 *Graduate Seminar*, 2008-present.

- 1-hour seminar course.
- Emphasis on recent issues in entomological research.

Undergraduate course, ENTO404 *Fundamentals of Entomology*, 2006-present.

- 4-hour lecture and laboratory course (3-hr lecture and 2-hr lab.).
- Emphasis on insect biology.

Undergraduate course, ENTO412/ENVP412 *Pest Management*, 2007-2012.

- 4-hour lecture course.
- Emphasis on pest management strategy and tactics.

Undergraduate course, ENTO450 *Insect Ecology*, 2007-present.

- 2-hour lecture course.
- Emphasis on population, community, and ecosystem ecology of insects.

Undergraduate course, ENTO470/PPTH470 *Forest Pest Management*, 2007-2012.

- 4-hour lecture and laboratory course (2-hr lecture and 6-hr lab.).
- Emphasis on forest pest biology and management.

Undergraduate course, ENTO471/PPTH471 *Urban Tree and Shrub Health*, 2009-2011.

- 2-hour lecture course.
- Emphasis on environmental and pest issues of trees and shrubs in urban setting.

Undergraduate course, ENTO493B *Special Topic: Horticultural Entomology* 2008.

- 3-hour lecture and laboratory course.
- Emphasis on pest identification, biology, and management.

PROFESSIONAL ACTIVITIES: PEER REVIEW

Grant review

- Panel for USDA Pest Management Alternative Program
- Panel for USDA-NIFA Controlling Weedy and Invasive Plants Program
- WVU Faculty Senate Grant Program
- WVU Service Grant Program
- Hatch Proposals at Division of Plant and Soil Sciences, West Virginia University

Journal manuscript review.

- Annals of Applied Biology
- Annals of Carnegie Museum
- Applied Entomology and Zoology
- Biocontrol Science and Technology
- Biological Invasion
- Bragantia
- Bulletin of Insectology
- Crop Protection
- Ecological Modeling
- Entomologia Experimentalis et Applicata
- Entomological Research
- Environmental Entomology
- European Journal of Plant Pathology
- Florida Entomologist
- Journal of Apiculture
- Journal of Agricultural and Forest Entomology
- Journal of Apicultural Research
- Journal of Applied Ecology
- Journal of Applied Entomology
- Journal of Asia-Pacific Entomology
- Journal of Insect Science
- Journal of Economic Entomology
- Journal of Medical Entomology
- Malaria Journal
- Oikos
- Open Journal of Ecology
- PLoS One
- Scientia Agricola
- The Scientific World Journal
- Urban Forestry and Urban Greening

Book review

- Oxford University Press
 - Introduction to Insect Biology and Diversity (3rd, 4th, and 5th editions)
- Cambridge University Press
 - Insect Ecology (3rd edition)
- Johns Hopkins University Press
 - Insects

AWARDS AND SCHOLARSHIP

Outstanding Faculty in Service, 2014

- Division of Plant and Soil Sciences, West Virginia University.

Outstanding Faculty in Research, 2013 and 2016

- Division of Plant and Soil Sciences, West Virginia University.

Outstanding Junior Faculty Award, 2011.

- Sigma Gamma Delta, West Virginia Chapter.

Outstanding Faculty in Teaching, 2009 and 2012

- Division of Plant and Soil Sciences, West Virginia University.

Recognition by Entomological Society of America for Outstanding Service, 2008-2009.

- Entomological Society of America.

Recognition by Entomological Society of America for Outstanding Service, 2007-2008.

- Entomological Society of America.

First place prize for the student oral-presentation competition, 2003.

- Entomological Society of America Branch Meeting, Madison, Wisconsin.

Second place prize for the student poster-presentation competition, 2002.

- Entomological Society of America National Meeting, Ft. Lauderdale, Florida.

First place prize for the student poster-presentation competition, 2001.

- Entomological Society of America Branch Meeting, Ft. Collins, Colorado.

Second place team prize for the Linnaean Game, 2001.

- Entomological Society of America Branch Meeting, Ft. Collins, Colorado.

Seoul National University Alumni Association in the USA Scholarship, 2001.

- Annual Alumni Meeting, Kansas City, Missouri.

Graduate Student Leadership Scholarship, 2001.

- Graduate College, Iowa State University.

Adult Student Scholarship, 2001.

- Graduate College, Iowa State University.

Academic Excellence Scholarship, 1996.

- Seoul National University, Seoul, Korea.

AFFILIATIONS & SERVICES IN ACADEMIC SOCIETIES

Editorship

- Journal of Asia-Pacific Entomology, Associate Editor, 2017-current.
- International Journal of Entomological Research, Editorial Board Member, 2012-current.
- Korean Journal of Applied Entomology, Editorial Board Member, 2012-current.
- Dataset Papers in Agriculture, Editorial Board Member, 2014-2016.
- The Scientific World Journal, Editorial Board Member, 2012-2015.
- Journal of Plant Science and Soil Health, Editorial Board Member, 2013-2016.

International Congress of Entomology

- Young Entomologist Committee, chair, 2002.

Entomological Society of America

- Student presentation competition committee, chair/co-chair, 2014-2017.
- Registration committee, chair, 2008-2010.
- Local arrangement and technology committee, 2007-2008.
- Member, 2000-current.

Acarological Society of America

- Member, 2008-current.

West Virginia Entomological Society

- President, 2013.
- Member, 2006-current.

Sigma Delta Gamma

- Member, 2007-current.

National 4-H Forestry Invitational Committee, 2008-current.

- Member, 2006-2011.

Mid-Atlantic Information Network for Pesticides and Alternative Strategies Advisory Committee

- Member, 2007-2010.

West Virginia Forest Health Advisory Committee.

- Member, 2006-2008.

University Committee on International Study Curriculum, Iowa State University, 2001-2002.

- Graduate Student Representative.

Korean Society of Applied Entomology, 1995-1999.

- Member.

Working Group Membership

- Brown Marmorated Stink Bug Working Group (Member)
- Spotted Winged Drosophila Working Group (Member)
- West Virginia Invasive Species Working Group (Member)
- West Virginia Medical Entomology Working Group (Leader)
- The Potomac Highlands Cooperative Weed & Pest Management Area (Member)