

Entomological Society of America Plant-Insect Ecosystems Section

August-September 2013 Newsletter

<http://www.entsoc.org/pie>



P-IE Calendar

November 10-14 – ESA Annual Meeting in Austin, Texas – with P-IE

- P-IE Business/Networking Meeting, Monday, Nov. 11, 2-5 pm
- P-IE Listening Session, Wed., Nov. 13, 4-5 pm
- New P-IE Leaders and representatives assume their roles at the end of the annual meeting

2013 Annual Meeting & P-IE Networking and Business Meeting

By all measurements this will be the most information-packed meeting with record numbers of entries in all categories. The program is on-line at [visit the online program today](#). The P-IE GC will continue the tradition of a Monday afternoon networking and business meeting, and based on survey feedback we will shorten your time commitment to participate. After the annual brief business meeting, we will have an information session on the theme of **Connecting to the Future** – What entomology needs will continue, disappear and emerge? There will be great tips on how to keep your job now and be in demand in the future. Following the panel presentation there will be refreshments and a **DRAWING for 2, I-PAD wireless enabled minis**. One will be reserved for moderator and student judge volunteers and one for all P-IE members. YOU MUST BE PRESENT to participate, learn and have a high-odds chance at a new I-PAD. Entry forms will be in the next two newsletters. We look forward to our annual Section business, learning, and having fun networking!

P-IE Volunteers Needed for National Annual Meeting

More than 100 volunteers, primarily moderators of 10-minute papers and judges of student papers and posters, are needed each year to run the P-IE portion of the national ESA Annual Meeting. Vice President John Adamczyk has the wrangling duties this year and believes he has enough volunteers; however, once assignments and travel are finalized, there has historically been high turnover, so he wants more alternates. If you could help, please ask John to add you to the alternate list by sending him an email at jadamczyk301@gmail.com. Thank you to those who already volunteered for this crucial task; without you we could not hold our annual meeting! Note all volunteers and alternates will be included in the **special I-PAD** drawing at the Network-Business Meeting on Monday afternoon.

P-IE Election Results

If you have been reading your ESA Central communications you are aware of the election results. P-IE Governing Council would like to extend a sincere thank you to all the candidates who “stepped-up” and ran for National and Section positions. We had excellent candidates and hope those who did not win will continue to engage and run again. Remember it is our Society and it will only be as effective as members make it. Please extend your congratulations if you haven’t already to these P-IE members:

ESA VP Elect – Dr. May Berenbaum, University of Illinois

ESA Treasurer – Dr. Mark Boetel, North Dakota State University

ESA Certification Board Director – Dr. Laura Higgins, DuPont Pioneer, IA

P-IE VP Elect – Dr. Fred Musser, Mississippi State University

P-IE Treasurer – Dr. Patrick Moran, USDA-ARS, Albany CA

P-IE Secretary – Dr. Andy Michel, Ohio State University

P-IE Student Representative – Alejandro Del Pozo, North Carolina State University

Congratulations to New P-IE Fellows & THANK YOU to the Nominators

DR. CHARLES VINCENT is a research scientist at the Horticultural Research and Development Centre of Agriculture and Agri-Food Canada at Saint-Jean-sur-Richelieu, Quebec, Canada. He is recognized as an international leader in agricultural entomology, and has demonstrated innovation in research and development of alternative insect management methods to conventional insecticides.

Born in Montreal, Quebec in 1953, he received a B.S. in agriculture from Université Laval (Quebec City) in 1978, and an M.S. (1980) and a Ph.D. (1983) in entomology from McGill University. In 1983 he joined the Horticultural Research and Development Centre of Agriculture and Agri-Food Canada at Saint-Jean-sur-Richelieu. He was appointed adjunct professor at McGill University in 1984; professeur adjoint at the Université du Québec à Montréal in 1991; and professeur invité in 2000 at the l'Université Picardie Jules Verne (Amiens, France), where he taught a one-month workshop on scientific writing every year.

Vincent’s research involved finding alternatives to insecticides in horticultural crops. His research was instrumental in the development and commercialization of Virosoft CP4® (in collaboration with Biotepp Inc.), the first insecticidal virus registered for agricultural use in Canada, and Requiem®, a Chenopodium-based botanical (in collaboration with Codena Inc.). He has achieved an international reputation for important contributions to classical biological control and physical control methods for management of insect pests in diverse agricultural systems. He supervised the work of 14 Ph.D. students, 22 M.S. students, six postdocs, and more than 100 student interns, mostly from Europe. He has authored 165 scientific papers, and edited 24 books and 8 technical bulletins. He has given more than 500 presentations before diverse audiences worldwide.



Vincent served ESA as Co-Chair of the Local Arrangements Committee for the ESA-ESC-SEQ meeting in Montreal (2000); member of the Committee on Common Names of Insects (2001-2003); member of the Committee on International Affairs (2004-2010); Governing Board member, representing the International Branch (2012); and as organizer of five symposia at ESA meetings. He has assumed leadership positions in scientific societies, notably as President of the Société d’entomologie du Québec (1988), President of the Entomological Society of Canada (2004), and President of ESA’s International Branch (2011). He has co-organized 26 symposia worldwide, and assumed ca. 50 positions or functions in various scientific societies. He has received numerous awards, including two Exceptional Service Awards from ESA (2000, 2007); Commandor, Order of Agronomical Merit from the Ordre des Agronomes du Québec (2009); a Gold Medal from the

Entomological Society of Canada (2010); the Entomological Distinction Award from the Entomological Society of Quebec (2012); Foreign Member from the Académie d'Agriculture de France (2012); and the L.O. Howard Distinguished Achievement Award from ESA's Eastern Branch (2013).

He has lived happily with France Labrèche (a medical epidemiologist) for 40 years. They have two sons, Philippe (a chemist) and Louis (a physicist). His hobbies include reading (history, biographies, thrillers), listening to music, acoustic guitar, singing (occasionally in public), tennis, volleyball, and traveling.

DR. MICHAEL E. GRAY, a professor at the University of Illinois at Urbana-Champaign, is internationally recognized for his research and extension programs on the management of the western corn rootworm, *Diabrotica virgifera virgifera* LeConte.



Gray was born in Villisca, Iowa on 27 March 1955. He traveled extensively as a youth and lived in several states and other countries, including Germany, Japan, and the Philippines. Following many years overseas, he returned to Iowa and received his B.A. in biology from the University of Northern Iowa in 1977. After his graduation, Gray taught high school science for a brief period and then entered graduate school at Iowa State University, where he earned his M.S. (1982) and Ph.D. (1986) degrees in entomology. He then served as postdoctoral research associate at South Dakota State University from 1987 to 1988. In March of 1988, he accepted a position as an extension entomologist at

the University of Illinois. In 1999, he attained the rank of full professor. Gray currently serves as a professor in the Department of Crop Sciences and as an assistant dean for extension programs in agriculture and natural resources.

Gray's research and extension programs have been interwoven throughout his career at the University of Illinois. His primary research emphasis has been to increase our understanding of the biology, ecology, and management of the western corn rootworm. Gray has published numerous journal articles on western corn rootworms, including a 2009 *Annual Review of Entomology* paper, and he also served as co-editor for the *ESA Handbook of Corn Insects*, published in 1999. In 2008, Gray began serving as a program leader with the Energy BioSciences Institute at the University of Illinois, the goal of his program being to evaluate the influence of insects, diseases, and nematodes on the biomass production of biofuel crops. He has served in several leadership roles within the IPM arena, including IPM coordinator at the University of Illinois, co-director of the USDA-CSREES North Central Region IPM Center, and panel manager for the USDA North Central Region IPM Grants Program.

Gray has been a member of ESA since 1979 and has served this professional society in a number of leadership roles, including: Program Chair, North Central Branch Meeting, 1994; editorial board member, *American Entomologist*, 1990-1995; executive committee member, North Central Branch, 1994-1997; editor, *Journal of Economic Entomology*, 1995-1997; Program Co-Chair, ESA National Meeting, San Diego, California, 2001; President, North Central Branch, 2002-2003; Governing Board member, Section E, 2004-2005; Chair, ESA Nominations Committee, 2004-2006; and Governing Board Executive Committee member, 2004-2009. Gray served as President of ESA during the first full year of ESA's Renewal and transition to the four new Sections.

Gray is the recipient of the Young (1994) and Senior (2002) Faculty Award for Excellence in Extension, University of Illinois. In 2002, he received the ESA NCB Award for Excellence in Integrated Pest Management. In 2007, Gray received the Paul A. Funk Recognition Award for outstanding achievement and major contributions to the betterment of agriculture, natural resources, and human systems, College of Agricultural, Consumer and Environmental Sciences, University of Illinois. In 2011, he received the ESA Distinguished Achievement Award in Extension. In 2013, the ESA North Central Branch honored Gray with the C.V. Riley Achievement Award.

DR. JOCELYN MILLAR is a professor in the Department of Entomology at the University of California, Riverside (UCR). He is internationally known for his research on insect chemical ecology, and the development of applications for insect semiochemicals and related compounds.



Professor Millar was born in Harlow, England in 1954, and his family immigrated to Canada in 1957. He attended the University of British Columbia for two years, studying engineering, then worked and traveled in Europe, Africa, and Asia for two years. After returning to Canada, he enrolled at Simon Fraser University, graduating with a B.S. in chemistry in 1979. He then obtained his Ph.D. in chemistry at Simon Fraser with A. C. (Cam) Oehlschlager, identifying and synthesizing grain beetle aggregation pheromones. After graduation in 1983, he worked on host plant-based attractants for elm bark beetles with R.M. Silverstein (State University of New York, Syracuse) for a year, before joining the National Research Council of Canada's laboratory in Saskatoon, Saskatchewan for two years, studying pheromones of geometrid and arctiid moths with E.W. Underhill. He then ran a large toxicology laboratory in Vancouver for two years, before taking his current position at UC Riverside in 1988. He was invited to become a Cooperating Faculty Member in the Department of Chemistry at UC Riverside in 1999.

Millar's research is primarily focused on insect chemical ecology. His program is vertically integrated to encompass basic behavioral studies demonstrating that chemical communication is occurring through the isolation, identification, and synthesis of the chemical signals, to the verification of the biological activity of the various components or blends. Where appropriate, these studies extend to the development of practical applications for insect pheromones and related chemicals that can be exploited for detection, sampling, and management of insects. His group has worked with the semiochemistry of hundreds of species in several insect orders. In addition to chemical ecology, Millar's group has worked on biological control of invasive weevils and cerambycid beetles, and on substrate-borne vibrational communication in true bugs. Much of his work has been done with collaborators, reflecting the multidisciplinary nature of his research program. Millar has published more than 250 scientific papers, 24 book chapters and review articles, and four edited books. He has graduated four M.S. and three Ph.D. students, with five Ph.D. students currently in his group. He has also mentored 17 postdoctoral scientists and 25 visiting scientists.

Millar has been the presenter or a coauthor on more than 200 invited and more than 300 submitted presentations at statewide, national, and international conferences. His work has been recognized by several national ESA awards, including the Recognition Award in Entomology (2001), the Entomological Foundation's Team IPM Award (2006), the Entomological Foundation's Award for Excellence in IPM (2008), and the ESA Pacific Branch's C. W. Woodworth Award. He was elected as a fellow of the American Association for the Advancement of Science in 2003, and has been selected as the 2014 Silver Medal winner by the International Society of Chemical Ecology, in recognition of career achievement in chemical ecology.

Possible Funding Opportunities

As your Section closes its annual year, we find we have a little more budget flexibility than normal with much of the credit due to our EPA liaison Dr. Mark Whalon who has been able to combine his ESA trips with other trips to EPA. If there are critical network, retiree, or student support needs that cannot be met otherwise, please contact any of your P-IE GC. Any funds not used in 2013 can be carried over and combined with future funds to have more impact, so please apply only if it will advance P-IE goals.

P-IE Volunteers Participate in USDA listening session on Plant Resistance

Response from the Entomological Society of America to U.S.D.A.

The Plant-Insect Ecosystems (PIE) section of the Entomological Society of America represents a diverse group of scientists and other stakeholders focused on topics that include behavioral, ecological, and evolutionary relationships in natural landscapes, as well as integrated pest management (IPM) in agriculture, horticulture, forests, and lawn and garden.

Entomologists working on plant-insect interactions, in particular insect resistance, have traditionally been and will continue to be critical foundational members of diverse plant breeding scientific groups who focus on identification and release of adapted varieties to meet the needs of stakeholders in the US and throughout the world. Worldwide, insects directly and indirectly account for a large percentage of plant damage and crop losses and sustainable management of these pests will continue to be a major focus of plant breeding efforts. Indeed, successful plant breeding programs require interdisciplinary collaborative approaches to be most effective at identifying important insect related traits, and long formed partnerships between entomologists and plant breeders have resulted in deployment of resistant plants focused on protecting yield and/or quality for hundreds of years in the US.

Relative to critical national security issues associated with sustainable food production and crop protection, the Entomological Society of America agrees in principle with the strategic research, education and policy goals identified at the American Seed Research Summit in 2008. A basic cornerstone of plant breeding is the long-term maintenance of sources of genetic diversity because these sources of plant diversity contain important genes for insect resistance and many other value added traits. For this reason, we encourage USDA to increase capacity funding to plant introduction stations and experiment stations with successful breeding programs for maintenance and evaluation of critical germplasm collections, as well as training of future plant breeding scientists. The Entomological Society of America would also like to encourage the USDA fund collaborative research between plant breeders and entomologists directed at evaluating adapted germplasm and improving crop resistance to insects. This direct interaction between plant breeders and entomologists generally involves identification of stakeholder needs, research on plant/insect interactions, understanding crop and insect genetics, developing systems for selection using insects, discovery of useful genes, and sustainable gene deployment strategies that ensure durable resistance.

We encourage sources of competitive funding that evaluate plant-insect interactions in sustainable agricultural systems. Systems that deploy multiple modes of control, such as multigenic approaches to breeding for insect resistance or combined systems such as resistant crops and crop rotation should be given priorities. Basic research which supports improved methods for understanding genotype by environment interactions will continue to evolve as new technology is deployed. The USDA should look for opportunities to fund basic research in this area that will advance the science of plant breeding and complement cutting-edge research programs in the private sector.

To maximize the benefits of heterosis, we also look to the USDA to develop clear simple processes for which to utilize and move germplasm and/or insects within the US and among countries throughout the world. As pests have evolved resistance, or changed behaviors, and with increased global mobility more invasive species reaching our shores, there has been increased restrictions placed on insect movement, rearing, and the use of many pests needed for

plant breeding research. We encourage the USDA to develop and adopt processes and protocols that protect society from pests while allowing for plant breeding research to address critical stakeholder needs and emerging issues.

Drs. Kris Giles, Oklahoma State University & Jim Bing, Dow AgroSciences

P-IE Governing Council (GC)

Bonnie Pendleton, Past President (bpendleton@wtamu.edu)

Gary Thompson, President (gdthompson@dow.com)

John Adamczyk, Vice President (jadamczyk301@gmail.com)

Sujaya Rao, Vice President Elect (sujaya@oregonstate.edu)

Melissa Willrich Siebert, Secretary (mwillrichsiebert@dow.com)

Paula Davis, Treasurer (paula.davis@pioneer.com)

Alton "Stormy" Sparks, ESA Governing Board Representative (asparks@uga.edu)

Joy Paterson, Student Representative (joysbugs@gmail.com)