

ISCE NEWSLETTER, VOLUME 29, ISSUE 1, 2012

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Secretary / Editor's Message

Dear members! This newsletter contains information about the election of the new Vice President, and four new Councilors. The current executives thank our candidates in this election for volunteering! The latest news from the upcoming ISCE meeting in Vilnius 22-26 of July is presented together with a link to the website.

Vote for new councilors!

Please read the curricula vitae or statements of the candidates and then vote by filling out the online ballot at the ISCE website. You can also print and fill out the ballot and send it to our president (Paulo Zarbin) by May 1, 2012. (Prof. Dr. Paulo Henrique G. Zarbin, Departamento de Química – UFPR, CP 19081 CEP 81531-990, Curitiba - PR, Brasil). If sent by mail please do not write your name on the ballot itself, but please do write your name, as shown on ISCE records, on your envelope or in your e-mail text/signature.

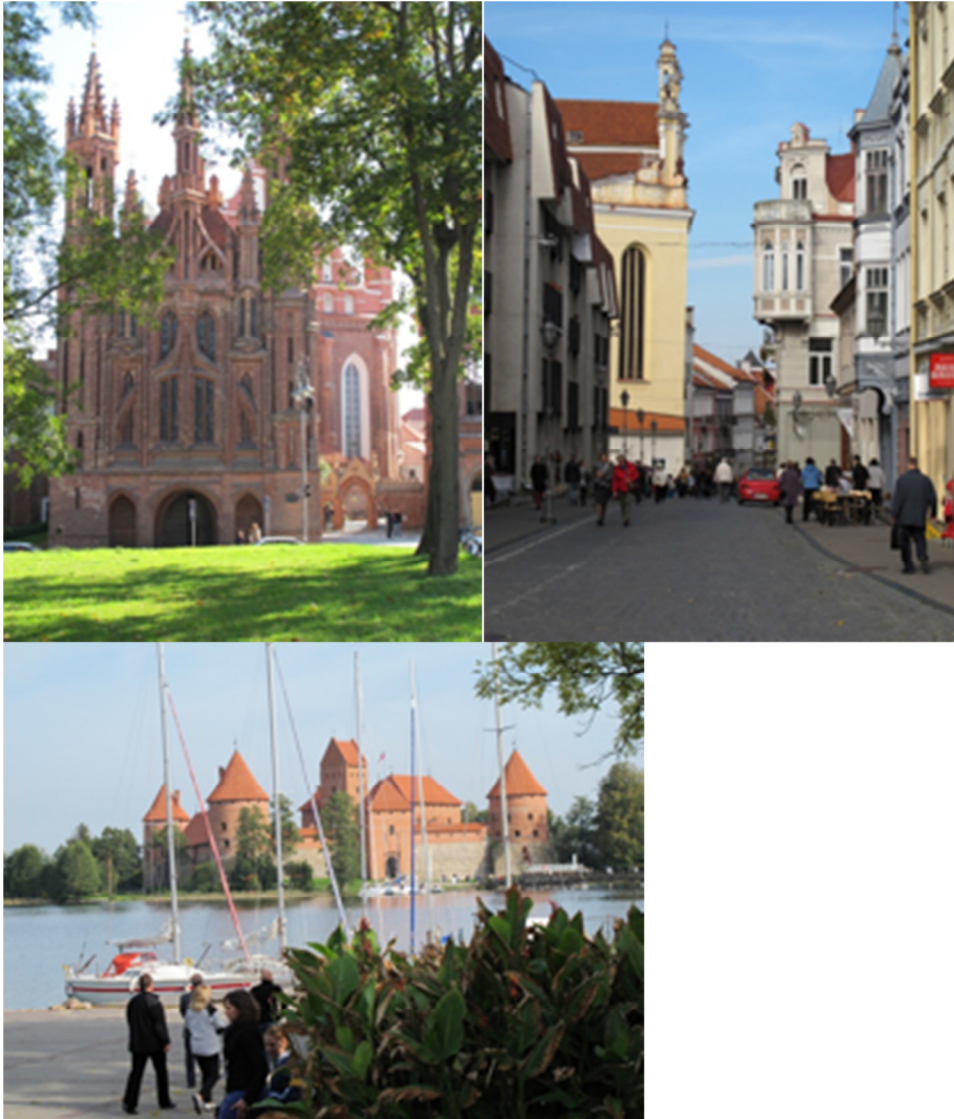
News about 2012 ISCE Meeting in Vilnius, Lithuania



Our local host Dr. Vincas Buda welcomes you to the 28th ISCE meeting to be held in Vilnius, the beautiful capital of Lithuania, one of the new EU member states with a 1000 year history. Lithuania is famous for its amber where ancient insects are often embedded!

The registration for the conference opened on March 15th. Please read and follow the instructions for submission of your abstract. You can also choose and book the hotel at the same time as you register. Various alternatives for lodging and prices are available! Please, remember to register before April 30, as it will be more expensive after that date. Information will be uploaded continuously at the conference website: <http://www.isce2012.gf.vu.lt/>

Support for researchers from developing countries and from former Soviet Union countries will be available and students are encouraged to apply for student travel awards. The range of support for the travel awards is from 300 to 750 USD.



Photos from Vilnius and surroundings

Our current Vice President and designated ISCE President 2012-2013



Ring T. Cardé is Distinguished Professor of Entomology, holder of the A.M. Boyce Chair in Entomology, and until 2009 was Chair of the Department of Entomology, University of California, Riverside, which he joined in 1996. His previous post was Distinguished University Professor and Head of Entomology at the University of Massachusetts. He started his academic career in 1975 at Michigan State University, following a postdoctoral with Wendell Roelofs at Cornell University's New York State Agricultural Experiment Station in Geneva. Ring grew up with a fascination for studying insects, particularly moths, and received a B.S. in Biology from Tufts University and M.S. and Ph.D. degrees in Entomology from Cornell University. His interests in moth biology led him to graduate work deciphering taxonomic and biological relationships in an obscure group of hard-to-tell-apart moths. In turn this led him to study pheromone communication in moths and how distinctive chemical channels foster reproductive isolation among closely related species. Of late his research group has concentrated on how flying male moths and female mosquitoes use odor plumes to navigate a course to an odor source, respectively, a pheromone-emitting female moth or a prospective vertebrate host. Such studies rely principally on analyses of video records of flight tracks and an understanding of the fluid dynamics of odor dispersion.

He has published 235 scientific papers and reviews and edited 7 books on insect chemical ecology, pheromones, and insect biology. He is a Fellow of the Entomological Society of America, the Entomological Society of Canada, the American Association for the Advancement of Science, and the Royal Entomological Society. In 2009 he was awarded our society's Silver Medal.

Please vote for the next ISCE Vice President!

Nomination of next ISCE Vice President (2012-2013): Stefan Schulz

Vice-President



Dr. Stefan Schulz is Full Professor of Organic Chemistry, University of Braunschweig – Institute of Technology, since 1997. Since 2006 he serves as the head of the Institute of Organic Chemistry of this University. He studied Chemistry in Hamburg and obtained his PhD in the group of Wittko Francke in 1987, working on the chemistry of butterflies. A post-doc time with Jerrold Meinwald at Cornell University, Ithaca, USA, followed in 1988. After returning to Hamburg he joined a priority program on Chemical Ecology of the German Science foundation and obtained his habilitation in 1994, working on arthropod chemical communication. After moving to Braunschweig, his main research interest is the Chemistry of Chemical Communication, concentrating on the analysis, synthesis and biosynthesis of semiochemicals and related compounds in the broadest sense. He lectures courses on chemical synthesis and natural products. After initial interest in butterflies and spiders, he currently is engaged also in bacterial communication and reptile as well as amphibian pheromone and chemical defense systems. He has published almost 140 papers and edited two books, concentrating on the chemical side of Chemical Ecology.

Please vote for the four new Councilors (you can vote for four colleagues)!

Nomination of ISCE Councilors 2012:



Dr. Junwei (Jerry) Zhu is a Research Chemical Ecologist/Entomologist with the U.S. Department of Agriculture, Agricultural Research Service, Agroecosystem Management Research Unit in Lincoln, Nebraska, USA. He received his Ph.D. in Chemical Ecology from Lund University, Sweden in 1995 under the supervision of Prof. Christer Löfstedt. He did his postdoctoral training with Prof. Kenneth Haynes in the University of Kentucky (1995-96), before joining as a Faculty member in Lund University (1997-1998). During his research career at Iowa State University (1998-2007), Dr. Zhu started his entrepreneurship with a start-up Biotech company (MSTRS Technologies, Inc.), together with the ISCE Silver Medal Award Winner Prof. Tom Baker, that researches, develops and manufactures semiochemical-based products for controlling insect pests in agricultural and urban settings. The company received the 2007 National Tibbetts Award (top 40 among 4000 small companies selected in the US). In 2008, Dr. Zhu joined the USDA-ARS, with his research focusing on medical and veterinary entomology including infochemical interactions among pest insects, hosts and their environment (microbial community). He regularly publishes and reviews manuscripts in many peer-reviewed scientific journals, with over 50 of his publications in Chemical Ecology. Dr. Zhu has currently served as the Secretary of the Asia Pacific Chemical Ecologist Association, a sister society of ISCE.



Dr. Ann M. Ray is an Assistant Professor in the Department of Biology at Xavier University, a position she has held since 2010. She completed an undergraduate degree in biology with a minor concentration in chemistry at Bellarmine University, in Louisville, KY. She earned her M.S. and Ph.D. at the University

of Illinois at Urbana-Champaign, where her research focused on the chemical ecology of longhorned beetles and evolution of volatile pheromone use within the longhorned beetle subfamily Cerambycinae. Following graduation in 2009, she accepted a post-doctoral position in the research group of former ISCE president, Jocelyn Millar, at the University of California, Riverside. Annie's research continues to focus on identification of volatile pheromones and on the role of volatile pheromones in the evolution of mating systems of longhorned beetles. Annie maintains active research collaborations with Dr. Millar, and with her Ph.D. advisor, Lawrence Hanks. She has conducted research projects in Kentucky, Illinois, California, and Arizona in the US, and in Sonora, Mexico. She recently extended her field work to include sites in Ohio in the US, and in the Atlantic rainforests of Costa Rica. Her current academic appointment includes directing the research of undergraduate students who are completing independent projects on chemical ecology of longhorned beetles. Since 2003, Annie has authored/co-authored 13 publications on pheromones of longhorned beetles, seven of which have appeared in Journal of Chemical Ecology.



Dr. Matthias Erb heads the research group „Root-Herbivore Interactions“ at the Max Planck Institute for Chemical Ecology in Jena, Germany. He is interested in understanding the chemical interface between below ground herbivores and their host plants, including root volatiles, exudates and defensive secondary metabolites. His group also works on indirect interactions between above- and below ground feeders, with the aim to unravel the systemic plant signals that connect leaves and roots. As a PhD student, Matthias won several prizes, including the presentation award of the ISCE in 2008. Three years and 25 publications later, he serves on the editorial board of the Journal of Chemical Ecology and enjoys supporting the ISCE in any way possible.



Dr. Birgit Piechulla studied Biology (Diplom) at the University of Oldenburg and Göttingen (major subjects Microbiology, Biochemistry and Organic Chemistry) (Prof. G. Gottschalk). The PhD thesis

("Mitochondrial elongation factor of yeast") was performed at the Max-Planck-Institut for Experimental Medicine (Göttingen). I was postdoc at UC Berkeley in Willi Gruissem's lab and studied plant molecular biology (,chloroplast differentiation during tomato fruit development')(1984-1986). After returning to Germany I joined the plant biochemistry group of Prof. HW. Heldt (University of Göttingen) where I habilitated (1992) ("Molecular mechanisms of the circadian clock in tomato"). Since 1996 I have been full professor at the University of Rostock being responsible for the biochemistry education of diploma, bachelor, master and PhD students. A textbook "Plant Biochemistry" was published together with Prof. HW. Heldt. My recent research interest focused on secondary metabolites, i) plant volatile synthesis (enzyme isolation, characterization, evolution and regulation) and ii) bacterial volatile emission. Regarding the latter topic, it was only recently recognized that bacteria, including rhizobacteria, emit a wealth of volatiles. These bacterial blends affect plant and fungal growth dramatically and therefore it is my major future goal to unravel the complex volatile spectra and determine the biological functions and relevance of the volatiles in the respective ecosystems, e.g. in the soil.



Robert A. Raguso Professor, Dept. of Neurobiology and Behavior, Cornell University, USA

I became a chemical ecologist to better understand how complex interactions between insects and plants are mediated in ecological and evolutionary time. My doctoral thesis explored evolutionary shifts in floral volatile production by *Clarkia breweri* plants, at the chemical, genetic, physiological and ecological levels of organization. As a postdoc, I shifted my attention to insect electrophysiological and behavioral responses to floral volatiles as a postdoc, working with *Manduca sexta* moths and a guild of night-blooming plants pollinated by them, and using phylogenetic methods to parse signal from noise in complex volatile blends. Since then, my research program has expanded to include several plant lineages and model pollination systems, with the common goal of understanding how natural variation in chemical signals produced by plants is generated and maintained, and how pollinators and other animals integrate such information in their foraging behavior.

Other Positions Available

Positions available are continuously posted at the website.