SESSION LECTURE

No. 2

Insect Chemical Communication

Room: 307A

Co-Chairs: Le Kang

Honorary Chair
John Hildebrand/
Chair Brian Smith

Day 1 October 27th (Saturday) 13:30 – 17:00		
Time	**Speaker**	**Title**
13:30-14:00	**Gui-Rong Wang** *Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China*	Molecular basis of olfactory encoding and its application in the agricultural pest insects
14:00-14:30	**Brian Smith** *Arizona State University, USA*	The shape of odor space: Multiple information channels in complex, natural mixtures
14:30-15:00	**Chen-Zhu Wang** *Institute of Zoology, Chinese Academy of Sciences, China*	Sex pheromone communication mediated behavioral isolation between two Helicoverpa moth species
15:00-15:30	**Tea Break**	
15:30-16:00	**Neil D. Tsutsui** *University of California-Berkeley, USA*	Of ants and antennae: How pheromones define the boundaries of both societies and species
16:00-16:30	**Le Kang /Jianing Wei** *Institute of Zoology, Chinese Academy of Sciences, China*	Volatile compositions and olfactory aposematism in the migratory locust
16:30-17:00	**Jocelyn G. Millar** *University of California, Riverside, USA*	Chemical ecology to combat invasive species: Cerambycid beetles as a case study

Le Kang

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Distinguished Professor of the Institute of Zoology, Chinese Academy of Sciences(CAS), Member of the CAS since 2011. Dr. Kang integrates multiple approaches from molecular biology, physiology to behavior analysis to resolve the ecological questions in insect adaptation to environmental variation and stress. His highlights of research accomplishments include clarification of molecular regulatory mechanisms of locust phase changes, tritrophic interactions, and cold tolerance of insects.

Gui-Rong Wang

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Professor of Department of Biotechnology in Plant Protection, Institute of Plant Protection, Chinese Academy of Agricultural Sciences. He has long been engaged in the study of pest insect olfactory coding mechanisms.

Neil D. Tsutsui

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Neil D. Tsutsui is an evolutionary biologist and behavioral ecologist at the University of California-Berkeley. Dr. Tsutsui's research focuses on understanding individual behaviors, forms of social organization, and patterns of evolution. Previous work has applied genetic and biochemical tools to understanding how an introduced ant (the Argentine ant, Linepithema humile) has become ecologically dominant in its introduced range. In recent years, Dr. Tsutsui has been studying how individuals recognize each other as partners or foes. Future research will focus on applying approaches from genetics, genomics, chemistry and field ecology to understanding how the behaviors of individuals dictate the structure of complex and cooperative social groups.

Brian Smith

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His research focuses on learning and memory systems in both insects and mammals. Right now, he is also interested in how social context influences an infectious process between individuals, and he has got some new findings. These important work are being applied to studies of human diseases.

Chen-Zhu Wang

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Prof. Chen-Zhu Wang's research interest focuses on insect-plant interactions and chemical communications of insects. He systematically examined the coevolutionary interactions between Helicoverpa species and their host plants, including plant chemical defense to insects and insect adaptation to plant defense, and expanded the interacting insects and plants system to a multitrophic system with emphases on the impact of the third trophic level and host shift on the evolution of insect host range.

Jianing Wei

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His study focuses on understanding the mechanism of plant-insect or plant-plant communications mediated by chemical signaling from insect-inflicted plants. He is good at chemical analysis (GC-EAD, SSR, and GC-MS and LC-MS) and behavioral experiment of insect orientation.

Jocelyn G. Millar

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Millar is a professor in the departments of Entomology and Chemistry, University of California, Riverside. His research focuses on insect chemical ecology, including the identification, synthesis, and verification of the roles of semiochemicals in insects' life histories, and the development of practical applications for semiochemicals.