

SUNDAY

MONDAY

TUESDAY



5<sup>TH</sup> ASIA-PACIFIC CONGRESS OF ENTOMOLOGY

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# APACE

(Asia-Pacific Association of Chemical Ecologists)

## . PROGRAM .



**Symposia** .....70

**General Sessions** .....75

**Poster Presentations** .....76

S06

### Chemical Ecology (Symposia)

**Organizers** K. S. Boo (ksboo@plaza.snu.ac.kr) (Seoul National University, Korea)  
 Keng-Hong Tan (khtan@thhonline.com.my)  
 Ritsuo Nishida (ritz@kais.kyoto-u.ac.jp) (Kyoto University, Japan)  
 Eric B. Jang (US Pacific Basin Agric. Res. Center, USDA, USA)

#### S06-A Semiochemicals - Physiology (identification, biosynthesis, regulation, & reception)

**Organizers** Tom Baker (tcb10@psu.edu) (Penn State University, USA)

Oct. 18 (Tues) AM (11:00-12:30) & PM (14:00-15:00) / Room R 2

**Co-Chairs: Tom Baker and Kye Chung Park**

<b>0</b>	11:00-11:05	Tom Baker (tcb10@psu.edu)	Introduction	Penn State University, USA
<b>A1</b>	11:05-11:30	Tom Baker (tcb10@psu.edu), N.J. Vickers, and S.-G. Lee	Heliothine Moth Olfaction	Penn State University, USA
<b>A2</b>	11:30-11:50	Kye Chung Park (kcpark@psu.edu)	Electrophysiology of Olfactory Receptors and Its Practical Application	Penn State University, USA
<b>A3</b>	11:50-12:10	Jim Hardie (j.hardie@ic.ac.uk) and Kye Chung Park	The Aphid Olfactory System - Electroantennogram Investigations	Imperial College, UK
<b>A4</b>	12:10-12:30	G. McLeod, M. Chatterton, R. Gries, S. von Reuß, P. Schaefer, J. Rahe, W. König, R. McIntosh, Y. Higashiura, K. Möller, A. Engelmann, E. Plettner, and G. Gries (gries@sfu.ca)	Communication Ecology of Dutch Elm Disease and Lymantriid Moths	Simon Fraser University, Canada
<b>A5</b>	14:00-14:20	Satoshi Nojima (toshi_nojima@ncsu.edu), C. Schal, F. Webster, and W. Roelofs	Isolation and Identification of Blattellaquinone, the Female Volatile Sex Pheromone of the German Cockroach	North Carolina State University, USA
<b>A6</b>	14:20-14:40	Man Yeon Choi (mychoi@iastate.edu) and R. J. Jurenka	Pheromone Biosynthesis of <i>Helicoverpa</i> and <i>Heliothis</i> Moths	Iowa State Univ., USA
<b>A7</b>	14:40-15:00	Dae Won Lee (71dwlee@hanmail.net) and Man Yeon Choi	PBAN - Action and Their Receptors	Seoul National University, Korea

#### S06-B Semiochemicals - Chemistry (identification, activity, & synthesis)

**Organizers** Shigefumi Kuwahara (skuwahar@biochem.tohoku.ac.jp) (Tohoku University, Japan)

Oct. 18 (Tues) PM (15:00-15:30) & (16:00-18:00) / Room R 2

**Co-Chairs: Shigefumi Kuwahara, Tetsu Ando, and Henrique G. Zarbin**

<b>0</b>	15:00-15:05	Shigefumi Kuwahara (skuwahar@biochem.tohoku.ac.jp)	Introduction	Tohoku University, Japan
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<b>B1</b>	15:05-15:30	<u>Naoki Mori</u> (mokurin@kais.kyoto-u.ac.jp) and N. Yoshinaga	<i>In Vitro</i> Biosynthesis of Volicitin in <i>Spodoptera litura</i>	Kyoto Univrsity, Japan
<b>B2</b>	16:00-16:20	<u>Kazuaki Akasaka</u> (akasaka@biochem.tohoku.ac.jp)	Chiral Discrimination of Branched Fatty Acids, Alcohols and Amines by HPLC after Labeling with Chiral Derivatization Reagents	Tohoku University, Japan
<b>B3</b>	16:20-16:40	<u>Tetsu Ando</u> (antetsu@mail01.tuat.ac.jp) and Masanobu Yamamoto	Diagnostic Fragment Ions for the GC-MS Analyses of Lepidopteran Sex Pheromones	Tokyo University of Agriculture and Technology, Japan
<b>B4</b>	16:40-17:00	<u>Mary Fletcher</u> (mary.fletcher@dpi.qld.gov.au), S. Chow, L. K. Lambert, C. J. Moore, B. W. Cribb, P. G. Allsopp, and W. Kitching	Novel Cuticular Hydrocarbons from the Australian Cane Beetles <i>Antitrogus parvulus</i> : 4,6,8,10,16-Penta and 4,6,8,10,16,18-Hexamethyldocosanes	Department of Primary Industries and Fisheries, Australia
<b>B5</b>	17:00-17:20	T. Nakahata, A. Morita, Y. Nakamura, H. Kiyota, and <u>S. Kuwahara</u> (skuwahar@biochem.tohoku.ac.jp)	Synthesis of Some Semiochemicals Produced by Insects and Microorganisms	Tohoku University, Japan
<b>B6</b>	17:20-17:40	<u>Paulo Henrique G. Zarbin</u> (pzarbin@quimica.ufpr.br)	Pheromone Chemistry of Some Brazilian Agricultural Pests	Departamento de Química - UFPR, Brazil
<b>B7</b>	17:40-18:00	<u>Pei-Qiang Huang</u> (pqhuang@jingxian.xmu.edu.cn), Hong-Qiao Lan, Xiao Zheng,	Asymmetric Synthesis of the Sex Pheromones of Pine Sawflies and Other Semichemicals	Xiamen University, China and Yuan-Ping Ruan

**S06- Plant-Animal Interactions (w/ coevolution)**
**C**

**Organizers** Kotaro Konno (konno@affrc.go.jp) (National Institute of Agrobiological Sciences, Japan)  
Ritsuo Nishida (ritz@kais.kyoto-u.ac.jp) (Kyoto University, Japan)

Oct. **19 (Wed)** AM (09:00-10:30) (11:00-12:40) & PM (14:00-14:40) / **Room R 2**

**Co-Chairs: Kotaro Konno, Ritsuo Nishida and Richard O. Musser**

<b>0</b>	09:00-09:05	<u>Kotaro Konno</u> (konno@affrc.go.jp)	Introduction	National Institute of Agrobiological Sciences, Japan
<b>C1</b>	09:05-09:50	<u>H. Vogel</u> (hvogel@ice.mpg.de), J. Kroymann, U. Wittstock, C. Wheat, H. Fischer, W. Boland, T. Mitchell-Olds, and D. Heckel	Defenses and Counter-Defenses in Plant-Insect Interactions - a Tale from Two Sides	Max Planck Institute for Chemical Ecology, Germany
<b>C2</b>	09:50-10:10	<u>Kotaro Konno</u> (konno@affrc.go.jp)	Various Ingredients in Plant Latex: Their Crucial Roles in Plant Defense against Herbivorous Insects	National Institute of Agrobiological Sciences, Japan
<b>C3</b>	10:10-10:30	<u>Richard O. Musser</u> (RO-Musser@wiu.edu)	Caterpillar Saliva Beats Plant Defenses	Western Illinois University, USA
<b>C4</b>	11:00-11:20	<u>Hiroo Kanno</u> (h-kanno@nua.ac.jp) and Masaru Sato	Induced Systemic Resistance to Rice Blast Fungus in Rice Plant Infested by White Backed Planthopper	Nagoya University of Arts, Japan
<b>C5</b>	11:20-11:40	<u>Yonggen Lou</u> (yglou@zju.edu.cn), Guoxin Zhou, Yueji Lu, Xia Wang, and Jiaan Cheng	Induced Defense of Rice against Herbivorous Insects	Zhejiang University, China

# APACE 2005

## SYMPOSIUM SCHEDULE

<b>C6</b>	11:40-12:00	D. Kakuta, I. Kuroda, T. Shigyo, S. Tebayashi, and <u>Chulsa Kim</u> (cs-kim@cc.kochi-u.ac.jp)	Resistance of the Rice Variety, Lepe dumai, against the Green Leafhopper, <i>Nephotettix cincticeps</i> Uhler	Kochi University, Japan
<b>C7</b>	12:00-12:20	<u>Ashok J. Tamhankar</u> (pherosit@apsara.barc.ernet.in)	Plant Allelochemical Modification Mediating Reproductive Behaviour in Moths	Bhabha Atomic Research Centre, India
<b>C8</b>	12:20-12:40	<u>Wendell L. Roelofs</u> (wlr1@nysaes.cornell.edu) and C. E. Linn	Sympatric Speciation of <i>Rhagoletis</i> Fruit Flies Mediated by Fruit Odor	Cornell University, USA
<b>C9</b>	14:00-14:20	<u>Ritsuo Nishida</u> (ritz@kais.kyoto-u.ac.jp)	Phytochemical Basis of Host Recognition in Butterflies - Chemosensilla as an Evolutionary Interface?	Kyoto University, Japan
<b>C10</b>	14:20-14:40	<u>Frederic Francis</u> (francis.f@fsagx.ac.be), N. Harmel, P. Gerkens, E. De Pauw, and E. Haubruge	Aphid Adaptation to Plant Defence System	Gembloux Agricultural University, Belgium

### S06- Animal social behavior and semiochemistry

**D**

**Organizers** Hiromi Sasagawa (sasagawa@nias.affrc.go.jp) (Foundation for Advancement of International Science, Japan) & Ryohei Yamaoka (yamaoka@ipc.kit.ac.jp) (Kyoto Institute of Technology, Japan)

Oct. 19 (Wed) PM (16:00-18:50) / Room R 2

#### Co-Chairs: Hiromi Sasagawa and Ryohei Yamaoka

<b>0</b>	16:00-16:10	<u>Ryohei Yamaoka</u> (yamaoka@ipc.kit.ac.jp)	Introduction	Kyoto Institute of Technology, Japan
<b>D1</b>	16:10-16:30	<u>A. Wada-Katsumata</u> (awada@ipc.kit.ac.jp), M. Ozaki, M. Iwasaki, F. Yokohari, and R. Yamaoka	Nestmate/Non-Nestmate Discrimination by a Novel Chemosensory Organ in the Ant	Kyoto Institute of Technology, Japan
<b>D2</b>	16:30-16:50	<u>Kenji Matsuura</u> (kenjijpn@cc.okayama-u.ac.jp)	Interaction between Termites and Termite-Egg-Mimicking Fungi 'Termite Balls'	Okayama University, Japan
<b>D3</b>	16:50-17:10	<u>H. Shibao</u> (cshibao@mail.ecc.u-tokyo.ac.jp), M. Kutsukake, S. Matsuyama, T. Suzuki, and T. Fukatsu	Caste Differentiation, Division of Labor and Chemical Communication in a Social Aphid	University of Tokyo, Japan
<b>D4</b>	17:10-17:30	L. Pelletier and <u>J. N. McNeil</u> (jmcneil2@uwo.ca)	Reproductive Success of <i>Bombus</i> and <i>Psithyrus</i> Species: A Field Study	University of Western Ontario, Canada
<b>D5</b>	17:30-17:50	<u>Shigeru Matsuyama</u> (honeybee@sakura.cc.tsukuba.ac.jp) and Hiromi Sasagawa	In search of Keys to Insect Sociality: Chemical Ecology of Honey Bees in Asia	University of Tsukuba, Japan
<b>D6</b>	17:50-18:10	<u>Hiromi Sasagawa</u> (sasagawa@nias.affrc.go.jp) and Shigeru Matsuyama	Exploitation of Insect Potentials: Social Behaviours and Individual Communications in Honey Bees	Foundation for Advancement of International Science, Tokyo Metropolitan Institute for Neuroscience, Japan
<b>D7</b>	18:10-18:30	<u>R. M. Crewe</u> (rmcrewe@icon.co.za) and R. F. A. Moritz	Chemical Basis of Social Parasitism in Cape Honeybees	University of Pretoria, South Africa



<b>D8</b>	18:30-18:50	<u>Myeong-Lyeol Lee</u> and Young-Mi Park (mllee6@rda.go.kr)	Evidence of the Interspecific Mating between <i>Apis cerana</i> Fab. Queens and <i>Apis mellifera</i> L. Drones in the <i>A. mellifera</i> Apiary	Natl. Instit. Agric. Sci. Technol., Korea
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<b>S06-</b>	<b>Semiochemicals - Practical Application</b>			
<b>E</b>	<b>Organizers</b>	Jia-wei Du (dujwei@isdnet.sta.net.cn) (Shanghai Insitute of Plant Physiology & Ecology, China) & A. L. Il'ichev (Alex.Il'ichev@dpi.vic.gov.au) (Primary Industries Research Victoria, Australia)		

Oct. 20 (Thu) AM (09:00-10:30) & (11:00-12:30) & PM (14:00-15:20) / **Room R 2**

**Co-Chairs: Jia-wei Du and A. L. Il'ichev**

<b>0</b>	09:00-09:05	<u>Jia-wei Du</u> (dujwei@sibs.ac.cn)	Introduction	Shanghai Institute of Plant Physiology and Ecology, China
<b>E1</b>	09:05-09:30	<u>Jia-wei Du</u> (dujwei@sibs.ac.cn)	Vista and Retrospect of Chemical Ecological Researches in China	Shanghai Institute of Plant Physiology and Ecology, China
<b>E2</b>	09:30-09:50	<u>R. Cardé</u> (ring.carde@ucr.edu)	Mating Disruption in Moths: Principles and Application	University of California, USA
<b>E3</b>	09:50-10:10	<u>James R. Miller</u> (miller20@msu.edu)	Analytical Methods for Differentiating between Competitive vs. Non-Competitive Mechanisms of Mating Disruption	Michigan State University, USA
<b>E4</b>	10:10-10:30	<u>Larry Gut</u> (gut@msu.edu), L. Stelinski, and James Miller	Competitive Attraction as a Primary Mating Disruption Mechanism and its Implications	Michigan State University, USA
<b>E5</b>	11:00-11:30	<u>Alex Il'ichev</u> (alex.ilichev@dpi.vic.gov.au)	Advanced Mating Disruption Application Techniques in Semiochemical Based IPM in Australian Orchards	Primary Industries Research Victoria, Australia
<b>E6</b>	11:30-11:50	<u>C. P. Srivastava</u> (chandra_19572001@yahoo.co.in)	Present Status of Insect Sex Pheromone Research and Its Application in Integrated Pest Management in India	Institute of Agricultural Sciences, Varanasi, India
<b>E7</b>	11:50-12:10	<u>Sadahiro Tatsuki</u> (assulta@mail.ecc.u-tokyo.ac.jp)	Recent Topics on the Application of Insect Pheromones to Pest Management in Japan	Tokyo University, Japan
<b>E8</b>	12:10-12:30	<u>Junwei Zhu</u> (mstrszhu@gmail.com)	Recent Advances in Pest Control Using Environmental-Friendly Methods	Iowa State University, USA
<b>E9</b>	14:00-14:20	Z. Jumean, M. Hart, S. Takács, J.- P. Lafontaine, G.J.R. Judd, R. Gries, and <u>G. Gries</u> (gries@sfu.ca)	Learning the Communication Signals of Insects and How to Talk Back	Simon Fraser University, Canada
<b>E10</b>	14:20-14:40	<u>J. G. Millar</u> (Jocelyn.millar@ucr.edu), L.P.S. Kuenen, and J.S. McElfresh	Identification and Testing of Sex Pheromone Blends of a Major Tree Fruit Pest, the Navel Orangeworm	University of California, USA
<b>E11</b>	14:40-15:00	<u>Aijun Zhang</u> (zhanga@ba.ars.usda.gov)	Sex Pheromone of the Pink Hibiscus Mealybug <i>Maconellicoccus hirsutus</i> (Green)	USDA, ARS, USA
<b>E12</b>	15:00-15:20	<u>Stephen Sexton</u> (stephen@bioglobal.com.au)	Commercial Use of Semiochemical Pest Control Products in Australia	BioGlobal, Australia

# APACE 2005

## SYMPOSIUM SCHEDULE

### S06- Chemical Communication, Behavior, Molecular Ecology, and Aromatherapy

**F**

**Organizers** Max Suckling (msuckling@hortresearch.co.nz) (HortResearch, New Zealand) & Jeremy McNeil (jmcneil2@uwo.ca) (University of Western Ontario, Canada)

Oct. 21 (Fri) AM (09:00-10:30) & (11:00-12:10) / Room R 2

#### Co-Chairs: Jeremy McNeil and Max Suckling

<b>0</b>	09:00-09:05	<u>J. N. McNeil</u> (jmcneil2@uwo.ca)	Introduction	University of Western Ontario, Canada
<b>F1</b>	09:05-09:25	Kaori Shiojiri, Rika Ozawa, and <u>Junji Takabayashi</u> (junji@ecology.kyoto-u.ac.jp)	Host Plant Volatiles rather than Light Determines the Nocturnal Behavior of a Caterpillar	Center for Ecological Research, Kyoto University, Japan
<b>F2</b>	09:25-09:45	<u>J. G. Millar</u> (Jocelyn.millar@ucr.edu), G. Bagwell, and H.-Y. Ho	Pheromonal and Vibrational Signals in Phytophagous Stink Bug Communication	University of California, USA
<b>F3</b>	09:45-10:05	<u>Max Suckling</u> (msuckling@hortresearch.co.nz), A. R. Gibb, D. Comeskey, L. Berndt, E. G. Brockerhoff, A. M. El-Sayed, and H. Jactel	Sex Pheromone Identification of a New Zealand Geometrid Moth, <i>Pseudocoremia suavis</i> , Reveals a Species Complex	HortResearch, New Zealand
<b>F4</b>	10:05-10:30	M. McClure, R. Twele, D. Marchand, W. Francke, and <u>J. N. McNeil</u> (jmcneil2@uwo.ca)	Pheromone-Mediated Reproduction in the Aphid Parasitoids <i>Aphidius nigripes</i> and <i>A. ervi</i>	University of Western Ontario, Canada
<b>F5</b>	11:00-11:20	<u>K.C. Park</u> (kcpark@psu.edu), A. Al-Sayed and M. Suckling	Identification of Olfactory Receptor Neurons for Sex Pheromone and Plant Volatile Compounds in the Codling Moth, <i>Cydia pomonella</i>	Penn State University, USA
<b>F6</b>	11:20-11:40	<u>W. Francke</u> (francke@chemie.uni-hamburg.de), F. P. Schiestl, and M. Ayasse	The Pollination Syndrome: Chemistry of Sexual Deceit	University of Hamburg, Germany
<b>F7</b>	11:40-12:10	<u>Todd Shelly</u> (todd.e.shelly@aphis.usda.gov)	Aromatherapy as a Tool in Medfly SIT	APHIS, USDA, USA



G06

## Chemical Ecology (General Sessions)

**Organizers** K. S. Boo (ksboo@plaza.snu.ac.kr) (Seoul National University, Korea)  
 Keng-Hong Tan (khtan@thhonline.com.my)  
 Ritsuo Nishida (ritz@kais.kyoto-u.ac.jp) (Kyoto University, Japan)  
 Eric B. Jang (US Pacific Basin Agric. Res. Center, USDA, USA)

**G06-** Oct. 19 (Wed) PM (14:40-15:35) / Room R 2

**A**

General Session for Chemical Ecology I

**Chair: Ritsuo Nishida**

1	14:40-15:05	<u>Keng-Hong Tan</u> (khtan@thhonline.com.my), R. Nishida, J. Vermeulen	Floral Fragrance Containing Zingerone - A Point of Convergence or Divergence in the Coevolution between Orchids ( <i>Bulbophyllum</i> spp.) and Fruit Flies ( <i>Bactrocera</i> spp.)?	Tan Hak Heng Co., Malaysia
2	15:05-15:20	<u>D. B. Mekuria</u> (daniel_bisrat98@yahoo.com), T. Kashiwagi, S. Tebayashi, and C.-S. Kim	Oviposition Deterrents from Bitter Gourd Leaves, <i>Momordica charantia</i> to the Leafminer, <i>Liriomyza trifolii</i>	Kochi University, Japan
3	15:20-15:35	<u>Inoue A. Takashi</u> (inoueatp@affrc.go.jp)	Oviposition Preference of Japanese <i>Papilio</i> Butterflies to the Rutaceae Plants	Japanese National Institute of Agrobiological Science, Japan

**G06-** Oct. 20 (Thu) PM (16:00-17:45) / Room R 5

**B**

General Session for Chemical Ecology II

**Chair: J. G. Millar**

4	16:00-16:15	<u>T. Nakashima</u> (tshima@ffpri.affrc.go.jp), S. Saito, M. Kobayashi, H. Kinuura, M. Tokoro, T. Kashiwagi, S. Tebayashi, and C.-S. Kim	Aggregation Pheromone of the Oak Platypodid, <i>Platypus quercivorus</i>	Forestry and Forest Products Research Institute, Japan
5	16:15-16:30	<u>E. B. Jang</u> (ejang@pbarc.ars.usda.gov), M. S. Siderhurst, J. T. Nagarta, and L. A. F. N. Carvalho	GC/EAD for Identification of Pest Insect Attractants: Comparison of Nettle Moth Pheromone and Oriental Fruit Fly Host Odors	U.S. Pacific Basin Agric. Res. Center, USDA, USA
6	16:30-16:45	Y. Ishikawa, Y. Huang, T. Takanashi, <u>X. Fu</u> (ayucky@mail.ecc.u-tokyo.ac.jp), S. Ohno, J. Tabata, M. Fukuzawa, S. Hoshizaki, and S. Tatsuki	Sex Pheromone Communication Systems in the Genus <i>Ostrinia</i>	The University of Tokyo, Japan
7	16:45-17:00	<u>Xiang-bo Kong</u> (kongxbo@hotmail.com), Zhen Zhang, and Hong-bin Wang	Sex Pheromone and Kairomone Perception: Electrophysiological Response of the Yunnan Pine Caterpillar Moth, <i>Dendrolimus houi</i>	Research Institute of Forest Ecology, Environment and Protection, Chinese Academy of Forestry, china
8	17:00-17:15	<u>M. Fukuzawa</u> (fukuzawa_mai@yahoo.co.jp), S. Tatsuki, and Y. Ishikawa	Control of Sex Pheromone Biosynthesis in Adzuki Bean Borer, <i>Ostrinia scapulalis</i>	The University of Tokyo, Japan

## GENERAL SESSION &amp; POSTER SCHEDULE

9	17:15-17:30	<u>N. Yoshinaga</u> (nyossie@kais.kyoto-u.ac.jp), T. Aboshi, R. Nishida, and N. Mori	Metabolism of Volicitin - Related Compounds in <i>Spodoptera litura</i> Larvae	Kyoto University, Japan
10	17:30-17:45	<u>C. Tittiger</u> (crt@unr.edu), G.J. Blomquist, M. Ginzel, C.I. Keeling, S. Young, J. Bearfield, A. Gilg, and P. Sandstrom	Metabolic Adaptations of Bark Beetles to Their Host Trees	University of Nevada, USA

G06- Oct. 21 (Fri) PM (12:10-12:55) / Room R 2

C

General Session for Chemical Ecology III

Chair: Ring Cardé

11	12:10-12:25	Zhen Zhang (zhangzhen@forestry.ac.cn)	Is Pheromone-Based Population Monitoring Reliable?	Research Institute of Forest Protection, Chinese Academy of Forestry, China
12	12:25-12:40	S. B. Wang, J. W. Du, and Y. P. Huang	Combination of Attractants with Entomo- pathogenic Fungus for Controlling Pine Sayer Beetle, <i>Monochamus alternatus</i> Hope	Shanghai Institute of Plant Physiology & Ecology, Chinese Academy of Science, China
13	12:40-12:55	Norman Kamarudin (norman@mpob.gov.my) and Othman Arshad	Potentials of Using Pheromone Trapping for Monitoring and Control of the Bagworm <i>Metisa plana</i> (Lepidoptera: Psychidae) in Smallholder Plantations	Malaysian Palm Oil Board, Malaysia

P06

## Chemical Ecology (Poster)

Oct. 18 (Tues) (09:00~21:00) / Tamna Hall (8th Floor)

P06-01	Studies on the Biological Activities of Gland Secretion of the Predatory Stink Bug, <i>Eocanthecona furcellata</i> (Wolff) <u>H. Y. Ho</u>
P06-02	Monitoring of the Soybean Podborer <i>Matsumuraeses falcana</i> (Walshingham) (Lepidoptera: Tortricidae) Using Sex Pheromone in Korea <u>Jum Rae Cho, Kyung San, Choi, Jin Kyo Jung, and Jong Ho Park</u>
P06-03	Genetic Basis to Divergence of Sex Pheromones in Two Closely Related Moths, <i>Ostrinia scapularis</i> and <i>O. zealis</i> <u>Jun Tabata</u> and <u>Yukio Ishikawa</u>
P06-04	Aggregation Pheromone Biosynthesis in the Red Flour Beetle, <i>Tribolium castaneum</i> (Coleoptera: Tenebrionidae) <u>Junheon Kim, Shigeru Matsuyama, and Takahisa Suzuki</u>



- P06-05** What Do They Sense and How Do They Respond? -Alarm Pheromone and its Inducing Behaviour of the Japanese Carpenter Ant *Camponotus oobscuripes*  
*N. Fujiwara-Tsuji* and *R. Yamaoka*
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- P06-06** Synthesis of the Pheromone of the Citrus Leafminer, *Phyllocnistis citrella*  
*Y. Murata* and *S. Muto*
- 
- P06-07** Attractiveness of the Sex Pheromone Blends of the Large Black Chafer, *Holotrichia parallela*  
*M. Y. Choi, H. R. Seo, C. H. Paik, and J. D. Kim*
- 
- P06-08** Difference in Aggregation Pheromone Secretion between Korean and Japanese Bean Bug Populations  
*H. S. Huh, W. Huh, J. K. Son, D. W. Lee, and C. G. Park*
- 
- P06-09** Internal Transportation of a Sex Pheromone Precursor by Lipophorin in the Geometrid Female Moth, Which Secretes an Epoxyalkenyl Pheromone  
*Kanae Matuoka* and *Tetsu Ando*
- 
- P06-10** Sex Pheromones of Five Olethreutine Species (Lepidoptera: Tortricidae) Associated with the Seedlings and Fruits of Mangrove Plants in the Ryukyu Islands, Japan  
*Le van Vang, Shin-ichi Inomata, Masakatsu Kinjo, Furumi Komai, and Tetsu Ando*
- 
- P06-11** Odour Responses and Host Selection in the Generalist Aphid Parasitoid *Aphidius colemani* Viereck.  
*P. G. Vamvatsikos, H. F. van Emden, and J. Hardie*
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- P06-12** *Piezodorus hybneri* Use (E)-2-Hexenyl (E)-2-Hexenoate, Components of *Riptortus clavatus* Aggregation Pheromone, as a Cue for Finding Host Plant  
*H. S. Huh, W. Huh, S. M. Lee, H. K. Jang, and C. G. Park*
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- P06-13** Oviposition-stimulating Activity of Capsaicin Identified in *Capsicum annum* Fruits and its Related Compounds toward *Helicoverpa assulta* (Lepidoptera: Noctuidae)  
*Han-Seung Lee, Tran Trung Hieu, and Young-Joon Ahn*
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- P06-14** Rapid Changes of Induced Secondary Metabolites in Pine *Pinus massoniana*  
*Y. J. Jin, Q. Ren, Y. J. Hu, and Z. Y. Li*
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- P06-15** Methyl Jasmonate Induces Volatile Terpenes Released from *Pinus massoniana*  
*Q. Ren, Y. J. Hu, L. Yang, Y. J. Jin, H. J. Chen, Z. Y. Li, and M. J. Li*
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- P06-16** Three Signalings Involved in the Induced Plant Defenses against *Anoplophora glabripennis*  
*F. J. Zhang, Y. J. Jin, X. Y. Wu, and H. J. Chen*
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- P06-17** The Volatile Signals Meditating Host Location and Discrimination of *Aprostocetus prolixus*, an Egg Parasitoid of *Apriona germarii*  
*Ji-quan Li, Yuan Yan, Shu-xiang Wang, and Da-zhuang Huang*
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- P06-18** The Effects of Caterpillar Salivary Enzymes on Plant Defenses  
*R. O. Musser, C. J. White, and S. A. Williams*
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- P06-19** Indirect Defence of Aphid-Infested Potato: Role of Terpenes on *Episyrphus balteatus* Behaviour  
*F. Francis, N. Harmel, R. Almohamad, and E. Haubruge*
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- P06-20** Behaviour Use of Leaf Disc System to Assess Chemical Cues of Aphid-Infested Plant Toward *Episyrphus balteatus* Behaviour  
*R. Almohamad, L. Arnaud, F. Francis, and E. Haubruge*
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- P06-21** Behavioral and Electrophysiological Responses of the Strawberry Leaf Beetle, *Galerucella vittaticollis* Baly (Coleoptera: Chrysomelidae) to Host Plant Volatiles  
*Masatohi Hori, Kazuya Ohuchi, and Kazuhiro Matsuda*
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# APACE 2005

## GENERAL SESSION & POSTER

- P06-22** Survivorship of the Bean Bug Nymphs Fed on Seed Extract of a Resistant Mungbean Variety  
*J. K. Jung, J. K. Moon, J. H. Ku, and J. H. Park*
- 
- P06-23** Feeding Stimulants from the Camphor Tree Leaves (*Cinnamomum camphora* Sieb) to the Green-Banded Swallowtail (*Graphium sarpedon* L.) Larva.  
*Y. Nishimura, Y. Nishiyama, Y. Ikeno, S. Tebayashi, and C.-S. Kim*
- 
- P06-24** Isolation and Identification of the Ovipositional Deterrent in the Sweet Pepper, *Capsicum annuum* against *Liriomyza trifolii*  
*T. Kashiwagi, D. B. Mekuria, A. D. Boru, S. Tebayashi, and C.-S. Kim*
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- P06-25** Application of Plant Allelopathy in the Administration of Ecoagricultural System in China  
*Lihong Huang*
- 
- P06-26** Release Variation and Effects on Human Physiological response of Volatile Organic Compounds from Landscape Trees  
*Gao Yan and Jin Youju*
- 
- P06-27** Chemical Composition of Nutritious Reward Mediates Species-specificity of Lycaenid-Ant Interaction.  
*M. K. Hojo, A. Wada-Katsumata, M. Ozaki, and R. Yamaoka*
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## APACE meetings

1	Oct. 18 12:30-14:00	APACE Executive Meeting	President, Vice president, Secretary, & Treasurer	Tammora (Japanese Restaurant, 1st Fl)
2	Oct. 19 12:40-14:00	APACE Councilors' Meeting	APACE Councilors	Café the Blue (2nd Fl)
3	Oct. 19 19:00-20:00	APACE General Assembly	APACE Members	Grand Ball Room (R2)