APACE Newsletter

Asia-Pacific Association of Chemical Ecologists

November 1, 2013 Volume 1, Issue 1

Special topics of interest:

- First International Chemical Ecology Conference
- APACE Executive and Councilor Meeting
- APACE Life-time Achievement awards

In this issue:

Message from the Present President

Dear APACE members,

A great thank to all of you who attended our first International Chemical Ecology Conference (ICEC 2013) in Melbourne, Australia. This first joint conference of the APACE (www.apace97.org) and the ISCE (www.chemecol.org) achieved a long-term aspiration of our Founders and Executives to establish regular joint conferences. Both chemical ecology societies agreed to hold joint conferences every 4 years, with the next joint conference to be held in 2017 in Kyoto, Japan. The "tradition" is established and now our task is to support this tradition into the future. We will discuss this and other issues of our association at the APACE conference in 2015 that will be hosted by Dr. Jerry Zhu in USA.

During our APACE Executive and Councilor meeting at ICEC 2013 in Melbourne we also discussed the importance of establishing the regular APACE newsletter. This newsletter will keep our members informed about the APACE activities and general business, deliver the news about Chemical Ecology related events from Asia-Pacific Countries via our Councilors representing their countries and provide the forum for exchange of ideas and proposals for collaborations. Personally, I strongly believe that such regular newsletter will be very beneficial for all our members and colleagues by establishing a communication platform and creating the real sense of belonging to our great Association. Our newsletter welcomes all our members to submit information, suggestions and ideas on how to improve our communication and attract more members to our Asia-Pacific Association of Chemical Ecologists.

This is our first issue and includes the "Brief Reports" about the first International Chemical Ecology Conference and the APACE Executive and Councilor meeting that took place during the period of ICEC 2013. Please, enjoy your reading and do not hesitate to provide your suggestions, and initiate further discussions on any issues that will benefit our society in the future.

Thanks for your attention.

Sincerely yours,

Alex IL'ICHEV

International Chemical Ecology Conference 2013

19 – 23 August 2013
Melbourne Convention & Exhibition Centre
Victoria Australia
www.icec2013.com.au

International Society of Chemical Ecology, Inc.

Asia-Pacific Association of Chemical Ecologists

ICEC 2013 HIGHLIGHTS

- First International Chemical Ecology Conference (ICEC2013) was successfully held on Aug. 19-23, 2013 at the Melbourne Convention and Exhibition Center, Victoria, Australia.
- ICEC 2013 is the first joint meeting of the Asia-Pacific Association of Chemical Ecologists (APACE) and the International Society of Chemical Ecology (ISCE), which is a significant achievement of a long-term aspiration of APACE and ISCE Founders and Executives to organize a joint meeting of both societies.
- > 400 delegates from 42 countries from all continents attended the meeting and enjoyed the world's first "6-green-star" Convention Center nestled on the beautiful Yarra River in the heart of Melbourne.
- Academic programs showcased with 18 symposia and poster section and presentations of 6 Plenary Lectures (all abstracts are available for download from websites, www.apace97.org or www.chemecol.org).
- 4 Eminent Chemical Ecologists were awarded.

ISCE Silver Medal Award	Prof. Walter S. Leal (USA)
APACE Life-time Achievement Awards	Prof. Kenji Mori (Japan) and Prof. Kyung Saeng Boo (Korea)
ISCE Silverstein-Simeone Award	Prof. Consuelo De Moraes (USA)

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APACE Executive and Councilor Committee Meeting was held on August 20, 2013 during the ICEC 2013 in Melbourne. 5 executive officers, 10 councilors, JCE Editor attended the meeting. Dr. Naoki Mori (Japan) as a special guest representing Japan proposed to host the 2nd APACE-ISCE joint meeting in Kyoto (Japan) in 2017. At the meeting, past president, Dr. Yongping Huang presented the president remarks, and acknowledged our 6 exit-councilors for their services:

Dr. Satoshi Nojima (Japan)

Prof. Ren-sen Zeng (China)

Prof. Shawyi Hwang (Taiwan)

Dr. Kye Chung Park (New Zealand)

Mr. David Willams (Australia)

Prof. Gabrielle Nevitt (USA)

Dr. Alex Il'Ichev presented the ICEC 2013 report. Dr. Jerry Zhu gave the APACE financial report including the budget balance summary of 2011 APACE Conference in Beijing. The committee also approved appointment of Prof. Fengming Yan for APACE webmaster. New executive officers were appointed for term (2013-2015), and new councilor candidates were also discussed. All officers and councilors supported the proposed 2nd APACE-ISCE joint meeting in Kyoto, 2017. The next APACE conference will be held in the west coast city of USA (site selection will be announced soon).

APACE Life-time Achievement Award Winners

Prof. Kenji Mori (Japan)

Prof. Kyung Saeng Boo (Korea)

Best Student Oral Presentation Award Winners

Shin Tejima (Kyoto University, Japan)

Rebecca Neumann (Sydney Institute of Marine Science, Australia)

Guillaume Caulier (University of Mons, Belgium)

Best Student Poster Presentation Award Winners

Takashi Eguchi (Kyoto University, Japan)

Wataru Hojo (Iwate University, Japan)

Shinichiro Murakami (Kyoto University, Japan)

ASIA-PACIFIC ASSOCIATION OF CHEMICAL ECOLOGISTS (APACE)

New APACE Executive Officers (2013-2015)

8th APACE President

Dr. Alex IL'Ichev

Department of Environment and Primary Industries

Victoria, Australia. Email: alex.ilichev@depi.vic.gov.au

www.dpi.vic.gov.au

Vice President and President-Elect (2015-2017)

Dr. Junwei (Jerry) Zhu

Agroecosystem Management Research Unit, USDA-ARS

Lincoln, Nebraska, USA. Email: jerry.zhu@ars.usda.gov

www.ars.usda.gov/panda/people/people.htm?personid=42125

Secretary

Dr. Guirong Wang

Chinese Academy of Agricultural Sciences

Beijing, China. Email: grwang2010@hotmail.com

www.ippcaas.cn/Html/2010_05_07/2585_8997_2010_07_9541.html

Treasurer

Dr. Junji Takabayashi

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www.ecology.kyoto-u-ac.jp/ecology/member/takabayashi.html

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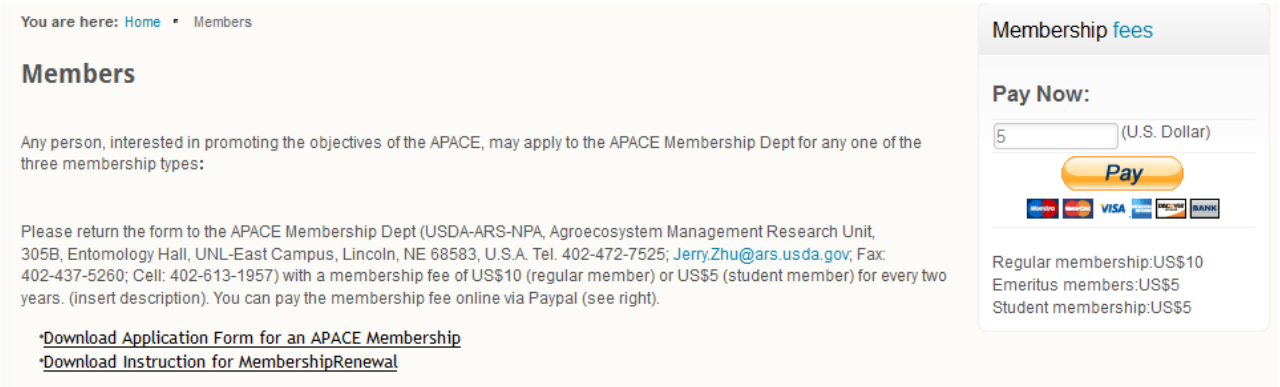

Employment Information

1. Chemical Ecologist (Assistant Professor of Entomology and Nematology, University of California, Davis, USA), https://recurit.ucdavis.edu/apply/JPF00180

2 Senior Associate Entomologist (SC Johnson, Racine, Wisconsin, USA), www.scjohnson.com/en/Career/search-position.aspx

3. Field Research Entomologist (Monsanto, St. Louis, USA), www.entsoc.org/getjob/18556

4. PhD Assistantship (Entomology Department, University of George, Athens, USA), www.entsoc.org/getjob/18477

5. PhD Assistantship (Jena School for Microbial Communication, Friedrich-Schiller University, Jena, Germany), www.jsmc.uni-jena.ed/phd-program/fellowship-application/vacant-projects/

Members' News

Flowers often used fragrant floral volatiles (olfactory cue) to attract insect pollinators apart from visual cue and reward its pollinators with nectar for a good job done. These insects mainly include butterflies, bees and hover flies. However, stinking flowers often offer a different bouquet of floral volatiles typically foul smelling and attract different groups of insect pollinators, namely flies (bow fly, flesh fly and other filth flies) and beetles. The Research on meta-analysis on the floral volatiles emitted by these stinking flowers, including Rafflesia, revealed that there are at least three different chemical strategies used by the stinking flowers to attract insect pollinators by mimicking their oviposition sites. The notion that Rafflesia flower smelled like dead corpses is now confirmed by chemical evidence that it produces oligosulphide compounds which mimic the carrion. The paper co-authored by **Dr. Suk Ling Wee** is published in "***Ecology Letters***" 16(9):1157-1167, 2013, a forum for the very rapid publication of the most novel research in ecology.

Silicon (Si) is the second most abundant element in soil, and it can increase plant resistance against many abiotic and biotic stresses. The jasmonate (JA) signaling pathway plays a crucial role in mediating antiherbivore defense responses in plants. **Dr. Rensen Zeng** and his team have discovered that Si primes JA-mediated antiherbivore defense responses and increases rice resistance to the leaffolder caterpillar and that Si accumulation in rice leaves is mediated by the JA pathway, suggesting a strong interaction between Si and JA in rice defense against insect herbivores. This interaction may represent a widespread mechanism by which Si enhances plant resistance against biotic stresses in Si-accumulating plants. Their work has been published in "***Proceedings of the National Academy of Sciences of the United States of America***" 2013, 110(38): E3631-3639.

Plant induced defences have been a hot topic for a long time. A research team led by **Dr. Myron Zalucki** have recently used transgenic *Arabidopsis thaliana* plants containing the gene for luciferase as a reporter to visualize jasmonate-responsive gene expression within plants in real time. By carefully tracking insect movement under the same conditions, they found that some insects detect changes within the plant that signal the oncoming chemical Œfirestorm[1] and escape the area. Young caterpillars of generalist-feeding *Helicoverpa armigera* could recognize changes in plant chemistry very early in the plant defence process, moving away from induced plant parts and staying longer on the un-induced parts of the same plant. For more details see their paper published in 2013 ***Proc R Soc B*** 280: 20122646, titled "Generalist insects behave in a jasmonate dependent manner On their host plants, leaving induced areas quickly and staying longer on distant parts".

A presentation by **Dr. Jean-Baptiste Raina** in the Aquatic Chemical Ecology session at ICEC 2013 has just been published in ***Nature***. Raina et al. overturn the paradigm that photosynthetic organisms are the sole biological source of dimethylsulfopropionate (DMSP). Globally, reef-building corals are the most prolific producers of DMSP, a central molecule in the marine sulphur cycle and precursor of the climate-active gas dimethylsulfide. At present, DMSP production by corals is attributed entirely to their algal endosymbiont, *Symbiodinium*. Combining chemical, genomic and molecular approaches, Raina et al. show that coral juveniles produce DMSP in the absence of algal symbionts. DMSP levels increased up to 54% over time in newly settled coral juveniles lacking algal endosymbionts, and further increases, up to 76%, were recorded when juveniles were subjected to thermal stress. The paper describes two algal genes recently identified in DMSP biosynthesis, strongly indicating that corals possess the enzymatic machinery necessary for DMSP production. See details in ***Nature*** (2013) 502:677-680.