



APACE Newsletter

Asia-Pacific Association of Chemical Ecologists

February, 2015

Volume 3, Issue 1

Special topics of interest:

- Message from the Present President with amendments and additions to **APACE Bylaws**
- APACE Life-time Achievement award 2015 winner **Prof. Jia-wei DU (China)**

Message from the Present President

Dear APACE members and friends,

Happy New 2015 Year to all APACE members and friends! We wish you and your families a peaceful, prosperous and productive New Year. This year will be the year of our 8-th Asia-Pacific Conference of Chemical Ecology that will be organised and hosted by APACE Vice-President **Dr. Jerry Zhu** (USDA-ARS) in California, USA on 23-26 September 2015 with the theme: "Chemical Ecology: Signalling in the 21-st Century". Early bird registration will be open from 1-st of March till 15-th of July, and we encourage all our members and friends to pay their membership dues via APACE webpage on-line and register to this conference as APACE paid members. Please, be aware that APACE membership dues have not been collected automatically after our last joint ISCE and APACE Conference (ICEC2013 in Melbourne), **therefore all APACE members have to renew their membership.** For more details about the conference, see the announcement page of this newsletter.

We are very proud to announce that the **APACE life-time achievement award for 2015** will be presented to the organiser and host of the historical 1-st APACE Conference in Shanghai (1-4 November 1999), eminent Chinese Chemical Ecologist, founder of the Chinese Association of Chemical Ecologists and the APACE past-president (2001-2002) **Prof. Jia-wei Du (China)**. This APACE Life-Time Achievement Award recognises long-term career achievement for over 40 years and significant contribution to the Chemical Ecology research in Asia-Pacific Region of **Prof. Jia-wei Du** who made outstanding contributions to many disciplines of Chemical Ecology, established a cohort of famous Chemical Ecologists in China that he supervised as post-graduate students, and provided outstanding service to the APACE community. We are very grateful for the ChemTica Internacional sponsorship fund that will support Prof. Du's travel to attend the 8-th APACE conference (23-26 September 2015, California, USA) where he will deliver the award lecture and receive APACE Life-Time Achievement Award 2015.

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When the Asia-Pacific Association of Chemical Ecologists (APACE) was established in 1997, the APACE Bylaws Article V (Executive Committee), point 6 stated: “The Executive Committee shall appoint **committees for special purposes**”, without providing details of special purposes. The APACE Life-Time Achievement Award was established in 2013 to recognise scientists with long-term career achievements and significant contributions to Chemical Ecology research in Asia-Pacific Region, but official nomination and selection procedures for this award was not established and included into the Bylaws.

Therefore, the following draft text is proposed for discussion and inclusion to the Bylaws after recommendation by Executive Committee and majority vote of the membership at the 8-th APACE meeting (as per Article IX):

Article V (Executive Committee), under point 6: “The Executive Committee shall appoint a special award selection committee that will call for nominations for the biennial APACE Life-time achievement award well in advance before the coming biennial conference. The current APACE President and immediate Past-President shall co-chair and supervise the selection process, but are not allowed to be nominated for the award. Current APACE officers and Councillors are also not eligible for the award because of a possible conflict of interest. Nominations for the award require an official nomination letter outlining the outstanding achievements and significant contributions of the nominee to Chemical Ecology research and the Chemical Ecology community in the Asia-Pacific Region during their career. A short CV with a list of significant publications and supporting letters from other colleagues that addresses why the nominee should be recognised for the award will contribute to selection process. Co-Chairs of the selection committee will prepare the nomination documents in a single PDF file for each candidate and distribute it to the members of the award selection committee, APACE Executives and Councillors for voting (each person has only one vote). Voting results will be submitted to the current APACE President who then will inform and congratulate the winner.

Article V (Executive Committee), under point 7: “The Executive Committee and the current APACE treasurer should discuss with the host and chair of each biennial APACE conference the option to include APACE membership dues into the conference registration fees and after successful conference conclusion transfer funds to APACE bank account as total membership fees. In case of the joint APACE and ISCE conferences (every 4 years) these discussions should determine prior to the event how to distinguish between members of each society and allocate membership funds accordingly. If such allocation is impossible, then exemption should be made and APACE membership dues should be paid by members prior to the coming conference to qualify for the “members registration”. Current APACE treasurer should provide the biennial assessment of the situation prior to the coming conference and provide recommendation to the Executive Committee for execution.



Article V (Executive Committee). Point 10: “

It is important for the APACE community that knowledge, experience and continuous contribution of the **Presidents** after their two years term will continue to benefit the association, the title of **Past President** should retain indefinitely. **All Past Presidents** (together with **immediate Past President**) will be welcome to attend and contribute their experience to the Executive Committee meetings. **All Past Presidents** should receive **life-time membership** of association free of charge, but could continue to pay dues or contribute by other means to the benefit of the association.

Dear APACE members, in conclusion I would like to underline once more that our Asia-Pacific Association of Chemical Ecologists are developing strongly and growing substantially after its establishment in 1997. Many changes happen in our Association during these years. The APACE was recognised Internationally and now stands shoulder to shoulder with the International Society of Chemical Ecology (ISCE). Both societies are officially affiliated with the Journal of Chemical Ecology (great appreciation to Dr. Eric Jang effort) and successfully organised the first joint conference (ICEC2013 in Melbourne) and approved the second joint conference in Kyoto in 2017, thus establishing the tradition of the regular joint APACE+ISCE conferences (congresses) every 4 years. I believe that our APACE Bylaws that was written long ago in 1997, now required some additions to reflect these APACE developments. Therefore, I took the initiative to propose some additions to the APACE Bylaws listed above.



On behalf of the APACE Executive Committee, it is my great privilege as the Present APACE President, to congratulate **Prof. Jia-wei Du (China)**, the winner of the **APACE life-time achievement award for 2015**. Famous Chinese Chemical Ecologist and the founder of the Chinese Association of Chemical Ecologists **Prof. Jia-wei Du** was the organiser and host of the historical 1-st APACE Conference in Shanghai (1-4 November 1999), and provided outstanding service to the APACE community. ChemTica Internacional, S.A. (Costa Rica) provided sponsorship for APACE Life-Time Achievement Award 2015.



We also announce a call for nominations (due by 1 May 2015) for the biennial APACE Life-time achievement award 2017 that will be awarded at the second joint APACE+ISCE conference in Kyoto, Japan in 2017.

Thank you very much for your attention. Please, enjoy reading of this newsletter and do not hesitate to submit your comments and information for the next issue of our newsletter.

Sincerely yours

Alex IL'ICHEV



APACE
2015



8th APACE Conference of Chemical Ecology: Signaling in the 21st Century

Wednesday, Sept. 23, 2015 – Saturday, Sept. 26, 2015

Conference Center at Hyatt Regency-Orange County
11999 Harbor Blvd.
Garden Grove, California 92840
United States
Tel: +1 714 750 1234
Fax: +1 714 740 0465

For more details: <https://www.regonline.com/APACE2015>

APACE Conference 2015 is a premier international forum for research professionals from industries, universities and academic institutes around Asia-Pacific regions to present their recent discoveries and development from basic research to practical applications with regard to the chemical ecology disciplines and areas. It includes 9 main sessions, and provide a unique opportunity to bridge the gap between the basic research and technology development.

Registration starts on March 1, 2015 (Early registration ends on July 15)

Hotel special conference rate ends on Sept. 1, 2015

Transportation from LA airport to Hotel can be arranged (upon request)

Sponsors





Members' News

News from Australia submitted by Prof. Meron Zalucki (APACE Councillor from Australia):

For each issue of the news letter I will try to introduce research activities of various groups working on Chemical Ecology. In this issue, I focus on the Chemical Ecology group within the Queensland Department of Agriculture, Fisheries and Forestry. This group is based in Brisbane and consists of **Andrew Hayes, Manon Griffiths, Helen Nahrung and Simon Lawson**. Their research focuses on strategies to monitor and control insect pests of horticulture and forestry. Current projects include:

Small Hive beetle (*Aethina tumida*) – this pest of European honeybees is devastating to the apicultural industry, and impacts upon pollination services to a wide range of horticultural and forestry crops. The group is developing an out-of-hive attractant trap, using odours from fermenting hive products, and a putative aggregation pheromone for control and monitoring of this beetle.

Eucalypt galling wasp (*Leptocybe invasa*) – this and other Australian native gall species are significantly impacting eucalypt plantation productivity and sustainability around the world. The group studies host preference and electrophysiology to help define the feeding guild of the many insects emerging from these galls. This work focuses on the Mekong delta in Vietnam and is funded by ACIAR.

Sirex woodwasp (*Sirex noctilio*) – the group is developing strategies to predict the susceptibility of novel host species through electrophysiological studies of both the antenna and the ovipositor of this important pest of *Pinus* trees.

A generic Cerambycid lure - in collaboration with Prof. Jocelyn Millar (UCR) and Prof. Larry Hanks (UIUC) the group is investigating the attractiveness of generic cerambycid pheromones to Australian species of these wood-boring pests.

Ladybirds (*Harmonia conformis* and *Cleobora mellyi*) - In collaboration with UTas and Southern Cross University, the group is examining the role of cuticular hydrocarbons in the formation and persistence of overwintering aggregations of two ladybird species that are important predators in horticulture and forestry.



Members' News

News from India submitted by Dr. K. R. M. Bhanu (APACE Councillor from India):

Chemical Ecologists from Bio-Control Research Laboratories (Pest Control, India Ltd.) are working on pheromones and kairomones of Banana pseudo stem weevil, Legume pod borer, Coconut black headed caterpillar and also on mass trapping of *Tuta absoluta*.

Chemical Ecologists from Indian Institute of Horticultural Research (IIHR) reported the following work:

“Under National Fellow project attempts are being made to understand the chemical ecology of major horticultural crop pests such as tephritid fruit flies (mainly *Bactrocera dorsalis* and *Bactrocera cucurbitae*), mango stone weevil, *Sternochetus mangiferae*, pomegranate fruit borer (*Deudorix isocrates*), fruit piercing moth (*Eudocima* spp) and banana weevils (*Odoiporus longicollis*, *Cosmopolites sordidus*), with the aim to identify potential kairomones/ pheromones and their probable mixtures to attract above target pests”.

Indian Chemical Ecologists recently published the following papers:

Kamala Jayanthi P D, Vivek Kemprij, Ravindra Mahadappa Aurade, Soumya BR, Ravindra Kothapalli Venkataramanappa, Bakthavatsalam Nandagopal, Abraham Verghese. Centuries of domestication has not impaired oviposition site-selection function in the silkworm, *Bombyx mori*. **Nature Scientific Reports** 4, 7472 doi:10.1038/srep07472.

Kamala Jayanthi, P. D., Vivek Kemprij, Ravindra M Aurade, Roy, T. K., Shivashankara, K. S. and Abraham Verghese. 2014. Computational reverse chemical ecology: virtual screening and predicting behavioral active semiochemicals for *Bactrocera dorsalis*. **BMC Genomics**, 15:209 doi:10.1186/1471-2164-15-209.

Kamala Jayanthi, P. D., Vivek Kemprij, Ravindra M. Aurade, Ravindra K.V, Bakthavatsalam. N, Abraham Verghese and Toby J. A. Bruce. 2014. Oviposition site-selection by the oriental fruit fly, *Bactrocera dorsalis*, is mediated through an innate recognition template tuned to g-octalactone . **PLOS One** (1), e85764. doi:10.1371/journal.

Kamala Jayanthi, P. D., Vivek Kemprij, Ravindra M Aurade, Ravindra, K. V., Bakthavatsalam, N., Abraham Verghese, and Toby J A Bruce. 2014. Specific volatile cues from mango elicit oviposition in gravid *Bactrocera dorsalis*. **Journal of Chemical Ecology** 40: 259-266. DOI 10.1007/s10886-014-0403-7.



Members' News

News from China submitted by Prof. Baoyu Han (APACE Councillor from China):

The research group of Prof. Baoyu Han, from College of Life Sciences, China Jiliang University, Hangzhou, P. R. China (email: han-insect@263.net , <http://www.cjlu.edu.cn>).

Current projects include:

1. Tea green leafhopper, *Empoasca vitis* Götthe, the first important insect pest in Chinese tea growing regions. We have investigated its population fluctuation, and used the colored sticky boards with botanic attractants to trap it in large areas, so as to decrease the chemical control.
2. Tea aphid, *Toxoptera aurantii* Boyer, an important pest in Chinese tea plantations. In collaboration with Dr. Zhang Q-H, we have separated and identified its sex pheromones, developed sex attractants to trap it, we have developed a lacewing attractant which attract many lacewings *Chrysopa septempunctata* Wesmael together, to prey on it.
3. Tea geometrid, *Ectropis obliqu* Prout, an important pest in eastern China tea plantations. We have investigated its population dynamics, and used the colored sticky boards with botanic attractants to trap its adults in large areas.
4. Citrus spiny whitefly, *Aleurocanthus spiniferus* (Quaintance), an important pest in Chinese tea plantations. We have investigated its population dynamics, and used the colored sticky boards with botanic attractants to trap its adults in large areas.
5. Chrysanthemum flowers used as a drink in China, but often the Chrysanthemum aphid *Macrosiphoniella sanborni* (Gillette), entered into its flowers. We used the colored sticky boards with aphid sex attractants to trap it.



Members' News

News from New Zealand submitted by Dr. Michael Rostas (APACE Councillor from New Zealand):

“Scarab larvae avoid boosted pasture grasses”

Most New Zealand ryegrass and fescue pastures contain beneficial microorganisms that live within the grass shoots. These fungal endophytes of the genus *Epichloë* (*Neotyphodium*) are key to the country's healthy grasslands — in return for food and shelter the endophyte can help its host grass to resist insect attack by producing alkaloids, survive droughts, and even protect against overgrazing.

A recent study by **Dr. Rostás and collaborators** from the Bio-Protection Research Centre has shown that pasture grasses containing beneficial microorganisms in their shoots are less attractive to soil-dwelling insect pests. Using olfactometer bioassays and proton-transfer-reaction mass spectrometry it was demonstrated that endophyte-harboring plants emitted less root volatiles, such as monoterpenes and other compounds, which larvae of the scarab beetle *Costelytra zealandica* use for host finding. The insects preferred feeding on grasses that were not colonized by *Epichloë* and therefore showed higher emission rates. The results suggest for the first time that aboveground fungi can influence the volatile-mediated foraging behaviour of belowground insects. The work was published online in “Oecologia”, doi: 10.1007/s00442-014-3104-6

Promotions and Announcements:

“Dr. Junwei (Jerry) Zhu has been promoted to Full Professor ranking (Adjunct) at the Department of Entomology, Institute of Agriculture and Natural Resources, University of Nebraska, USA”, He has also been elected as the Treasurer of Overseas Chinese Entomologists Association – Entomological Society of America”.

Great Congratulations to our APACE Vice-President & President-elect Prof. Jerry Zhu!!!



To show your support to APACE, renew your membership or join us today by visiting www.apace97.org/members

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Members

Any person, interested in promoting the objectives of the APACE, may apply to the APACE Membership Dept for any one of the three membership types:

Please return the form to the APACE Membership Dept (USDA-ARS-NPA, Agroecosystem Management Research Unit, 305B, Entomology Hall, UNL-East Campus, Lincoln, NE 68583, U.S.A. Tel. 402-472-7525; Jerry.Zhu@ars.usda.gov; Fax: 402-437-5260; Cell: 402-613-1957) with a membership fee of US\$10 (regular member) or US\$5 (student member) for every two years. (insert description). You can pay the membership fee online via Paypal (see right).

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Membership fees

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(U.S. Dollar)

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Regular membership:US\$10
Emeritus members:US\$5
Student membership:US\$5