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PLANT PROTECTION SCIENCES

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BIODIVERSITY AND INTEGRATED PEST MANAGEMENT: WORKING TOGETHER FOR A SUSTAINABLE FUTURE

This conference, jointly organized by Clemson University and Virginia Tech in the United States, Sam Ratulangi University in Indonesia and IAPPS, is taking place 4–7 July, 2013, at the Sintesa Peninsula Hotel in Manado, North Sulawesi, Indonesia.

North Sulawesi has long been known for its rich and unique biodiversity. This province is situated on the eastern part of the Wallace Line. The Wallace Line refers to a line which runs through the middle of the Malay Archipelago between Bali and Lombok, and between Borneo and Sulawesi. Alfred Russel Wallace, the famed 19th century British naturalist, spent considerable time in this region, collecting various kinds of insects and birds throughout the island of Sulawesi. He proposed this biogeographic line that identifies the dramatic changes in fauna which have occurred in the middle of the Malay Archipelago. The islands that lie just east of the Wallace line hold a unique mix of Australian and Asian flora and fauna. The year 2013 represents the 100th anniversary of Dr. Wallace's death.

This conference will serve as a platform for researchers on biodiversity and IPM from all over the world to discuss the sustainability of food production without compromising the survival of biodiversity. In fact, biodiversity can be utilized in agro-ecosystems to secure crop protection which in turn improves crop production. In line with increased interest in internationalization in Indonesia and at Sam Ratulangi University, this is a great opportunity to explore possibilities for future collaboration in research and academic programs among participants from different institutions and countries. North Sulawesi offers a tremendous potential to researchers in biodiversity and IPM.

If we are to survive as a species, food production is paramount. But the gradual destruction of forests, watersheds, and other natural habitats in order to produce that food could lead to the eventual demise of our natural resource wealth. Integrated Pest Management, an ecological approach to suppressing pest species, employs tactics that cause the least ecological disruption. We have seen that its implementation has been highly effective: with the creation of a highly productive onion-rice cropping system in the Philippines, with the use of cue lure to control the melonfly in Bangladesh, and with the introduction of parasitoids to control the papaya mealybug in India, Sri Lanka and Ghana.

What we know is that IPM scientists and biodiversity experts each bring valuable pieces of the puzzle to the table, and there is a need and urgency for both groups to continue to work together.

We hope this conference provides that opportunity.

Topics include the integration of biodiversity and IPM into the cropping systems of rice, cacao, tomato, tea, cassava, cabbage, cotton, eggplant, coconut, and oil palm — each one a critical crop in the locales where they are grown.

The conference will start with three keynote addresses by world renowned scientists:

The biological exploration of northern Sulawesi by Alfred Russel Wallace (1823–1913) and other 19th century pioneers: **Jan van Tol**, Naturalis Biodiversity Center, Netherlands

Rice planthopper problems in Asia — Consequences of ecosystem breakdown induced by insecticide misuse: **K. L. Heong**, International Rice Research Institute, Philippines

A risk-minimizing argument for traditional crop varietal diversity use to reduce pest and disease damage in agricultural ecosystem: **Carlo Fadda**, Bioversity International, Italy

We hope this conference will stimulate new ideas and approaches for promoting stability in agricultural production systems through the preservation of biodiversity. We also hope that participants will take the opportunity to network with others to find new ways to work toward the common goal of preserving the natural world and the ecosystem services it provides, while still providing the necessary resources to sustain the human population.

More information on the conference, including the booklet of the full program and abstracts can be found at <http://www.oired.vt.edu/ipmcrsp/biodivipm2013/>

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THE FIGHT TO IMPROVE BEE HEALTH

A leading international bee expert who has teamed with local beekeepers and experts has been awarded nearly \$600,000 to help combat a global decline in bee health that threatens world food production.

The University of Western Australia's Professor Boris Baer and his team will undertake research that will help to protect not only bees but the production of food for humans. Australian Research Council Future Fellow Professor Baer said bees - managed and feral - pollinate about one-third of everything we eat. And bees around the world are under threat.

"The US has lost more than 10 million hives over the last six years and is having problems

securing crop pollination," Professor Baer, of UWA's Centre for Integrative Bee Research (CIBER), said.

"Here in Australia, beekeepers report increasing problems in coping with diseases such as American foul brood, hive beetle and the parasitic microsporidia Nosema. The arrival of the main villain, the Varroa mite, is expected in the coming decade and will have a catastrophic effect on our honeybees.

"We need about 750,000 hives to pollinate our crops but we currently have only about 500,000 managed colonies. A lot of the pollination is done by feral bees at the moment, but they are expected to be wiped out by Varroa."

An important step in the race against time to save the bees is to understand more about their immune system. The research team at CIBER - with partners including the Australian bee industry and international collaborators - aims to intensify research into honeybee reproduction, immunity and ecology. The goal is to better understand honeybees to spare Australia from the dramatic losses encountered everywhere else in the world.

For more information:

<http://www.news.uwa.edu.au/201307035814/business-and-industry/new-grants-are-bees-knees-one-third-what-we-eat>

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IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described in the IAPPS Web Site www.plantprotection.org.

The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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