

IAPPS NEWSLETTER

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WORKSHOP ON ARTHROPOD TAXONOMY



Taxonomy and species identifications are essential in biodiversity assessments. This specialty is

becoming a rare breed and is already extinct in many countries. To enhance partners with these basic skills, the first of a series of workshops on "Arthropod biodiversity, taxonomy and identification" was conducted at the International Rice Research Institute (IRRI), Los Baños, Laguna, Philippines, from March 1-12, 2010, with participants from China, Thailand and Vietnam.

The workshop aimed to address knowledge gaps of partner countries on arthropod sorting and identification. Basic arthropod identification is important in ecological research for the understanding of pest-natural enemy interactions, which are vital for developing better pest management tools and strategies.

Dr. Alberto T. Barrion, renowned insect taxonomist, formerly with IRRI and ICIPE and currently with the Philippine Rice Research Institute (PhilRice) was the lead resource person. Dr. Barrion was assisted by J. Catindig, S. Letana, and S. Villareal of the Entomology Unit of the Crop and Environmental Sciences Division.

Participants have learned how to identify the major diagnostic features of the most common and important arthropod orders, families and species, especially insects and spiders in the rice agricultural landscape using taxonomic keys. They were also taught skills on how to handle and preserve arthropods for identification

The Basic Arthropod Taxonomy Manual for the workshop is also available for download under Research Protocols at http://ricehoppers.net/project-news/

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SPECIES DIFFERENTIATION WITHIN BANANA APHID

In the past, banana, cardamom, ginger, *Caladium, Costus, Dieffenbachia, Hedychium, Heliconia, Colocasia*, and *Xanthosoma* have been recorded as host plants of *Pentalonia nigronervosa* and this aphid has been identified as a vector of banana bunchy top virus, banana mosaic disease, papaya ringspot virus and 'katte' disease of cardamom. Banana bunchy top is one of the serious diseases of banana in Asia, Pacific and Africa. Katte disease is considered as an important one of cardamom in India.

In a recent publication, Foottit et al., (2010) have identified the aphid population feeding on banana and other *Musa* species to be *P. nigronervosa* and the populations feeding on the plants in the Order Zingiberales and in the family Araceae as *Pentalonia caladii* based on molecular and morphometric analysis.

This differentiation of aphids of the genus *Pentalonia* feeding on the Musaceae, Zingiberales and Araceae to *P. nigronervosa* and *P. caladii* is important for the scientists involved in studies on banana bunchy top disease and katte disease of cardamom.

Foottit, R.G., H.E.L. Maw, K.S. Pike, and R.H. Miller. 2010. The identity of *Pentalonia nigronervosa* Coquerel and *P. Caladii* van der Goot (Hemiptera: Aphididae) based on molecular and morphometric analysis. Zootaxa, 2358: 25-38.

Prof R. Muniappan

IAPPS Coordinator Region XI: North America Email: rmuni@vt.edu The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in *Crop Protection* to members and other subscribers. *Crop Protection*, published by Elsevier, is the Official Journal of IAPPS.

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 a the world's crop and forest ecosystems.

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