



International Association for the
PLANT PROTECTION SCIENCES

IAPPS

NEWSLETTER

Number IX

September, 2014

BANANA LEAF ROLLER, A NEW PEST TO NEPAL

The banana leaf roller, *Erionota thrax* (Linnaeus) (Lepidoptera: Hesperidae) is of Southeast Asia in origin and it is distributed in Guam, Saipan, Hawaii, Papua New Guinea, Northeastern India, Andaman Islands and Mauritius. Its host plants are banana, *Musa textiles*, *Calamus trachycoleus*, and nipa.



The female butterfly lays eggs singly or in groups on the underside of the leaf. Upon hatching the larvae move to the outer margin of the leaf and feed by remaining inside the leaf roll. Larvae are covered with white waxy powder and the pupation takes place in the leaf roll. Heavy infestations may lead to severe defoliation leaving only the midrib.

Picture on the left: symptoms of severe defoliation by the banana leaf roller

In a trip to Rupandehi and Palpa districts in Nepal, Muniappan collected some pupae of the banana leaf roller on banana plants at Jhumsa, Palpa District on February 9, 2013. These pupae were reared to adult butterflies and were identified as *Erionota thrax*. In a trip to Nepalganj in February, 2014, eggs of banana leaf roller with exit holes possibly of the parasitoid *Trichogramma* sp. were found. Surveys conducted in March 2014 at Bharatpur, did not find banana leaf roller in banana plantations. Further surveys are being conducted to delineate distribution of this butterfly in Nepal. Written with Shiva Shankar Bhattarai and Sulav Paudel (IPM Innovation Lab, Nepal).

Prof. R. Muniappan

IAPPS Coordinator Region XI: North America

Director, IPM Innovation Lab

Email: rmuni@vt.edu

PAPAYA MEALYBUG PARASITOID IN BANGLADESH

The papaya mealybug, *Paracoccus marginatus* Williams and Granara de Willink (Hemiptera: Pseudococcidae), a native of Mexico was reported for the first time in Gazipur, Bangladesh in 2009 (Muniappan, et al., 2011). This mealybug was reported in India in 2008 (Muniappan et al., 2009) and a classical biological control program was implemented in 2010 by introducing the parasitoid, *Acerophagus papayae* Noyes and Schauff (Hymenoptera: Encyrtidae) from Puerto Rico. Subsequently, this parasitoid was mass reared and released in several southern states and Assam in northeastern part of India. Examination of papaya trees in Jessore on February 8, 2014 by the authors RM and MSH revealed the presence of parasitized mummies within an infestation of the papaya mealybug. The mummies were isolated in gelatin capsules and held for parasitoid emergence. The emerged parasitoid specimens were sent to the author GAE for examination and confirmation of their identity.

The parasitoid was confirmed as *A. papayae*; apparently it was fortuitously introduced to Bangladesh negating the need for its introduction through official channels for the control of the papaya mealybug. In addition to this primary parasitoid, there was one specimen of a hyperparasitoid, *Chartocerus* sp, (Hymenoptera: Signiphoridae) in the collections that we made. Written with Gregory A. Evans, (USDA, APHIS, Beltsville, USA) and Md Shahadath Hossain (IPM Innovation Lab, Joydebpur, Bangladesh)

References:

Muniappan, R., B.M. Shepard, G.W. Watson, G.R. Carner, D. Sartiami, A. Rauf, and M. D. Hammig. 2009. First report of the papaya mealybug, *Paracoccus marginatus* (Hemiptera: Pseudococcidae), in Indonesia and India. *J. Agric. Urban Entomol.* 25: 37-40.

Muniappan, R., B. M. Shepard, G. W. Watson, G. R. Carner, A. Rauf, D. Sartiami, P. Hidayat, J. V. K. Afun, G. Goergen, and A. K. M. Ziaur Rahman. 2011. New Records of Invasive Insects (Hemiptera: Sternorrhyncha) in Southeast Asia and West Africa. *J. Agric. Urban Entomol.* 26: 167-174.

Prof. R. Muniappan

IAPPS Coordinator Region XI: North America

Director, IPM Innovation Lab

Email: rmuni@vt.edu

AMERICAN PHYTOPATHOLOGICAL SOCIETY, CARIBBEAN DIVISION ANNUAL REGIONAL MEETING

The Caribbean Division of the American Phytopathological Society holds a regional meeting every year. This meeting provides both an intimate venue in which graduate students can present oral papers, and also provides all members the opportunity to meet, exchange ideas, and share information with colleagues working on subtropical or tropical plant diseases. The 2014 Caribbean Division meeting is being held jointly with the Caribbean Food Crops Society in the beautiful US

Virgin Islands, July 6-10 (actual APS-CD meeting dates are July 7-9, 2014) offering an additional opportunity to learn about all types of agricultural research being conducted throughout the greater Caribbean basin. An excellent networking opportunity and we hope to see a great turnout at this year's meeting.

Please encourage students and colleagues to submit abstracts and participate in this event. We have extended the abstract submission deadline for the 2014 APS Caribbean Division meeting to Wednesday, April 30th.

Abstracts for the APS Caribbean Division meeting should be submitted through the APS Division website at <http://www.multisoftevents.com/AbstractTemplate/default.aspx?eid=84>

The Caribbean Division meeting website:

(<http://www.apsnet.org/members/divisions/carib/meetings/Pages/2014APSCaribbeanDivisionMeeting.aspx>) provides all the details regarding the meeting including registration (which is being handled by the Caribbean Food Crop Society (CFCS)). Also note that we are providing the generous opportunity for three student travel awards (\$1,000 each) available to APS-CD student members presenting oral presentations at the division meeting.

Dr. Aaron J. Palmateer

APS Caribbean Division President

E-mail: ajp@ufl.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 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:

**Manuele Tamò
Editor, IAPPS Newsletter
IITA-Benin
08 B.P. 0932 Tri Postal, Cotonou, Republic of Benin
E-mail: m.tamo@cgiar.org**