and identification of thirteen species whose occurrence was not related to altitude. A significant fluctuation of the number of species and number of individuals, independent of the altitude, has been observed.

Identifying host by Macrochelids: chemical cues and role in recognition of the host

*Jérome Niogret, Michel Bertrand, Jean-Pierre Lumaret

Odum School of Ecology, Athens, USA. Jeromeniogret@yahoo.fr

Poster presentation: ***Ecology, population dynamics and species interactions***

Specialized phoretic strategies were developed in some phyla by species of Macrochelids, especially those linked to Scarabaeoidea and among them dung beetles. Analyze of host-finding behavior reveals importance of olfaction in host finding and in discriminating most favorable hosts. Analysis of compared attractiveness of cuticular extracts revealed that cuticular chemicals are the cues discriminating choices of the most specialized species and can play a role in the path from euryxeny to stenoxeny. Cuticular compounds were extracted, analyzed and identified by the Kovats index (IK). Relative concentration was measured using GC-MS analysis. Fourty nine substances were identified mainly alcohols and aliphatic alkans. The potential role played by each of these compounds in host-finding behavior of most specialized species of macrochelids is discussed.

Keywords: phoresy, chemical cues, insect attractiveness

Prevalence and genetic variability of the *Cardinium* symbionts of *Brevipalpus phoenicis* (Acari: Tenuipalpidae) populations from Brazil

*Valdenice Moreira Novelli, Juliana Freitas-Ástua, Eliane Locali-Fabris, Elliot Watanabe Kitajima, M.E. Hilf, T.R. Gottwald, M.A. Machado

Centro APTA Citros Sylvio Moreira - IAC, Cordeirópolis, Brazil. valdenice@centrodecitricultura.br

Poster presentation: ***Acari genetics and evolutionary biology***

Brevipalpus phoenicis transmits Citrus leprosis virus (CiLV-C), the causal agent of citrus leprosis, which is considered the most important viral disease in citrus in Brazil due to the severe symptoms it induces and the high cost involved in controlling the mite vector. The presence of *Cardinium* symbiont has been reported and is associated with feminization in these mites and reproduction alterations in several other arthropod hosts. Here, we report the prevalence and genetic variability of this endosymbiont in *B. phoenicis* mite populations from different hosts and geographic regions of Brazil. The presence of these bacteria was confirmed by PCR amplification and transmission electron microscopy, and the variability was evaluated by analysis of the 16S rDNA gene region. High similarity was observed among *Cardinium* from different mite populations, regardless of the host or geographic origin. Interestingly, although the presence of the symbiont has been associated with the haploid thelytoky, two mite populations were aposymbiotic. These populations have been investigated and suggest that other factors have been involved in the reproduction of these mites.
Financial Support: FAPESP, USDA/ARS, and CNPq.

Keywords: *Citrus*, leprosis, interaction

Molecular biology for Phytoseiidae identification: preliminary results

*Mireille Okassa, Marie-Stéphane Tixier, Serge Kreiter

Montpellier SupAgro, UMR CBGP, Montpellier, France. okassa@supagro.inra.fr

Oral presentation: ***Phylogeny and speciation***