INTERACTIONS AMONG BEES, WASPS, AND SOME AGRICULTURAL CROPS ADJACENT TO THE SECONDARY FOREST AT GANNORUWA

W.A.I.P. KARUNARATNE, C.V.S. GUNATILLEKE and I.A.U.N.GUNATILLEKE
Department of Botany, Faculty of Science, University of Peradeniya

Bees and wasps are economicaly imporatant insects as pollinators and predators. Decline of these insects is of global concern because of its impact on agricultural productivity, biological control of pests, and genetic diversity. This decline has been attributed to reduction in their natural habitats and the heavy use of insecticides. In this study the diversity of bees, their nesting sites, and activities on 37 agricultural crop species cultivated in the research fields at Gannoruwa, were examined in order to identify the specific pollinators of the crop species. Weed species and plant species found in the adjacent secondary forests were surveyed to acess its role in maintaing the populations of beneficial insects. Pollen found in the scopa (pollen carrying hairs) of bees were examined to recognize their true foraging plants.

Xylocopa colonies were found nesting in wooden logs close to the cultivated lands while *Ceratina* sp. nested in rose stems. Colonies of social bees were not in the vicinity. Sweep netting off the vegetation caught 21 species of bees belonging to 11 (?) genera and four families of which *Apis cerana, A. florea* and *Trigona iridipennis* were the most frequent visitors. Of the agricultural crop species surveyed *Ipomoea batatas, Solanum melongena, Cucumis sativus, Persea americana* and *Luffa* sp. were mostly foraged by bees for collecting pollen and/or nectar.*Hedyotis* and *Tagetes* were among the non-agricultural species frequently foraged by the bees.A number of polinators appear to be generalists visiting both agricultural and non-agricultural plant species suggesting the importance of the latter in maintaining the populations of pollinators especially during the lean periods resulting from the harvesting of annual crops at the end of their growing season.