Abstract

Aethina tumida Murray (Coleoptera: Nitidulidae) is considered a minor parasitic pest of African honey bee, Apis mellifera L. (Hymenoptera: Apidae), colonies, but little information is available on other coleopteran pests. We surveyed for A. tumida and other beetles in honey bee colonies at four major beekeeping locations: Watamu, Chawia-Taita, Matuu, and Nairobi in Kenya and compared their distribution within the colonies. The presence of A. tumida was confirmed in all the colonies surveyed, whereas Oplostomus haroldi Witte (Coleoptera: Scarabaeidae) was found for the first time to be associated with honey bee colonies in varying numbers at all the sites, except that none were found in colonies in Nairobi. More than 90% of A. tumida and O. haroldi were found in Watamu and Chawia, located within the coastal province of Kenya. Although A. tumida was found mostly on the bottom board of the hives, consistent with previous reports, O. haroldi was found on the frames. Laboratory bioassays using a two-choice olfactometer showed that both beetle species were significantly attracted to worker honey bee volatiles and commercial pollen dough inoculated with the yeast Kodamaea ohmeri associated with A. tumida. Based on these findings, we report for the first time O. haroldi as a pest of African honey bee colonies in Kenya. We propose that differences in their densities recorded in the colonies may be due to dissimilarities in the colony environments in the areas surveyed and that odor-baited traps that have been successfully been used to manage populations of A. tumida also will be suitable for use against O. haroldi.