Survey of Arthropods Associated with *Mangifera indica* l. (Mango) at Salikneta Farm, San Jose del Monte, Bulacan

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ABSTRACT: Fifty (n=50) non-fruiting mango trees, *Mangifera indica* L. in Salikneta farm were surveyed for the presence of arthropods. The study was carried out weekly for 10 weeks. Trees examined were selected by random sampling using a calculator in generating random numbers to locate the x and y coordinates in the grid. Forceps were used to collect the arthropods underneath the bark or from the superficial parts of the trunks and reachable branches. The arthropods identified were verified and identification confirmed by an entomologist. A total of 18 species were identified. *Macrotermes malaccensis* (giant termite) and *Nasutitermes matangensis* (tree termite) in tree barks and trunks; four species of ants, the *Polyrhachis bicolor* and *Polyrhachis hector* (spiny), *Odontomachus papuanus* (trap jaw*)* and *Oecophylla smaragdina (*weaver ant), found in trunks, branches, barks, and leaves. Detected on barks were the beetles *Ptomaphagus* sp. (corpse eater), *Cerylon* sp. (minute black beetle), and *Pachyrrhynchus* sp. (snout beetle). Found underneath the barks were the woodlouse *Porcellio* sp., a centipede from the Family Geophilomorpha, and millipede *Pseudopolydesmus* sp. In tree trunks, four spiders were collected namely: *Lycosa sp*. (wolf spider), *Anahita* sp. (wandering spider), *Phaeacius malayensis*, *Tamopsis* sp., *Nephila* sp. (golden orb weaving spider), and *Oxyopes* sp. (lynx spider). The weaver ant *O. smaragdina*, the termite *N. matangensis* and beetle *Pachyrrhynchus* sp. were found in 44%, 22% and 12% of the trees surveyed, respectively. Overall, ants and termites were the most prominent arthropods in all areas at the study site. Also, the trees along the pathway and the grassland yielded higher levels of species richness, with 14 and 13 different arthropod species, respectively. In summary, among the species identified, earlier reports consider the termites *M. malaccensis* and *N. matangensis*, beetle *Pachyrrhynchus* sp., and the woodlouse *Porcellio* sp., as really pestiferous. *While O. smaragdina*, *O. papuanus*, and *Polyrhachis* spp. are regarded beneficial as biological control agents in other fruit trees, the vesible mounds they construct to house their colonies in mango trees suggest that they can be damaging. Pruning is highly recommended with pest control.

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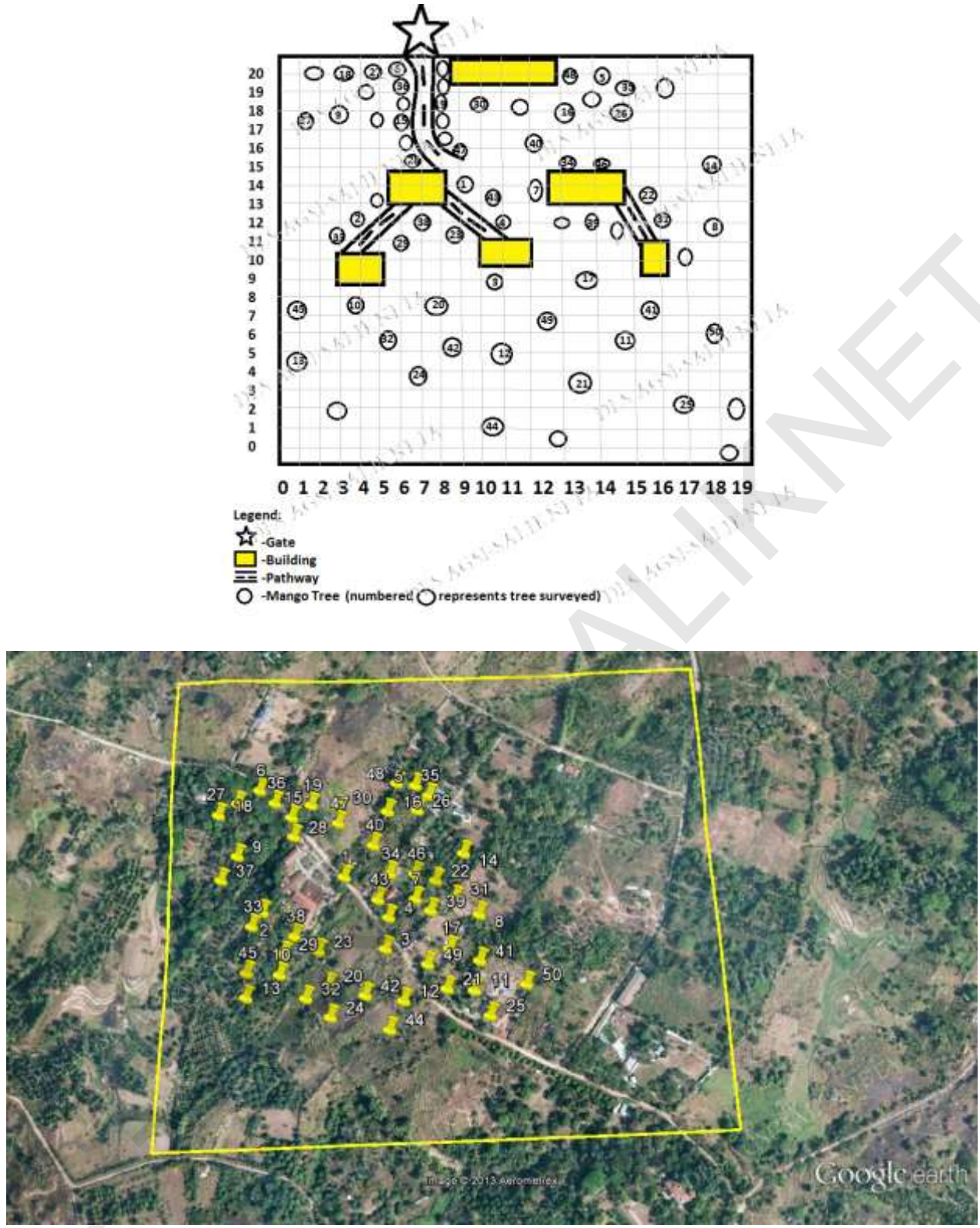

Figure 1. (A) Diagram of the study site. (B) Relative location of the mango trees in the farm. (Source: http://maps.google.com)

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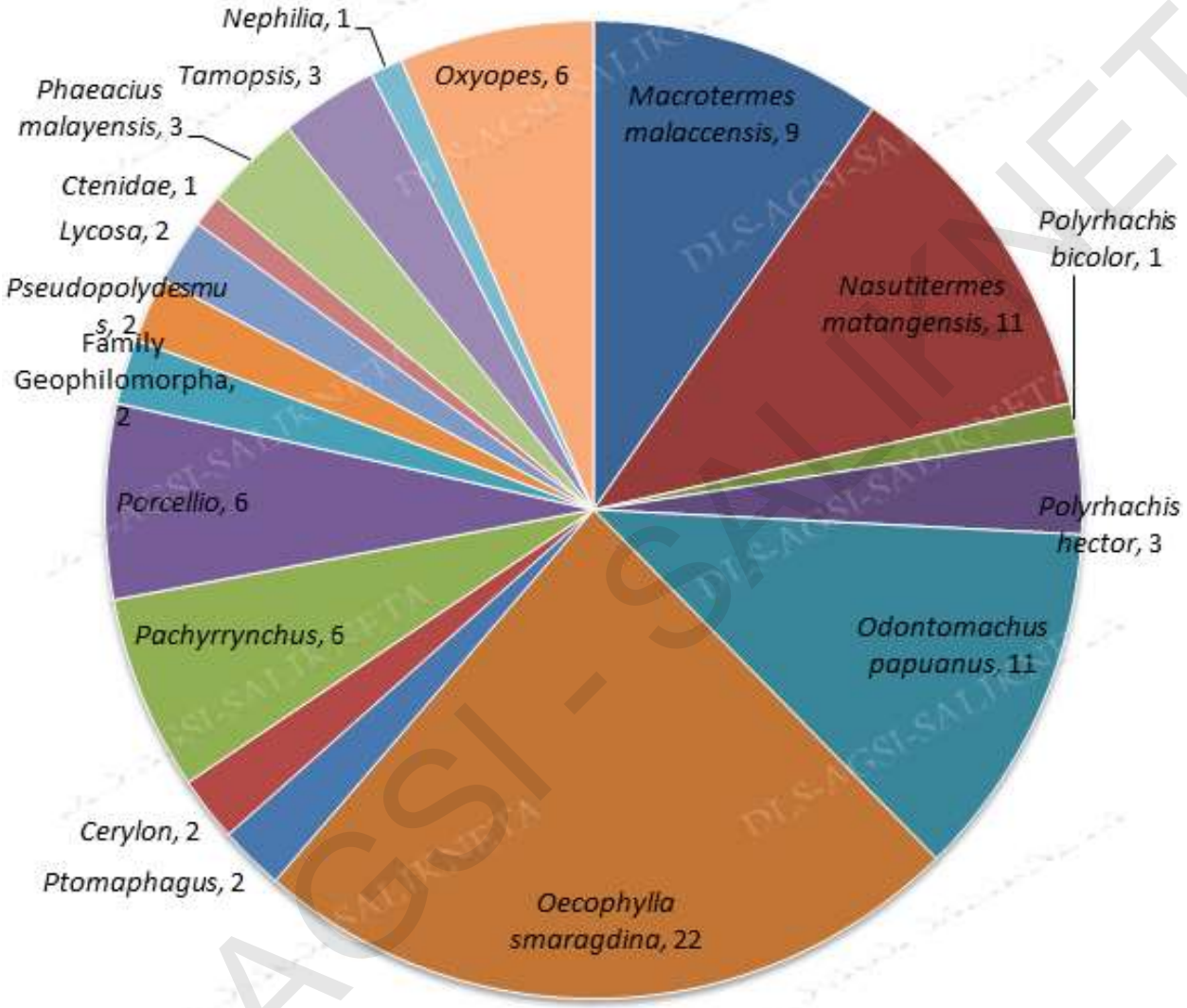

Figure 2. Distribution of arthropod species in 50 mango trees examined.

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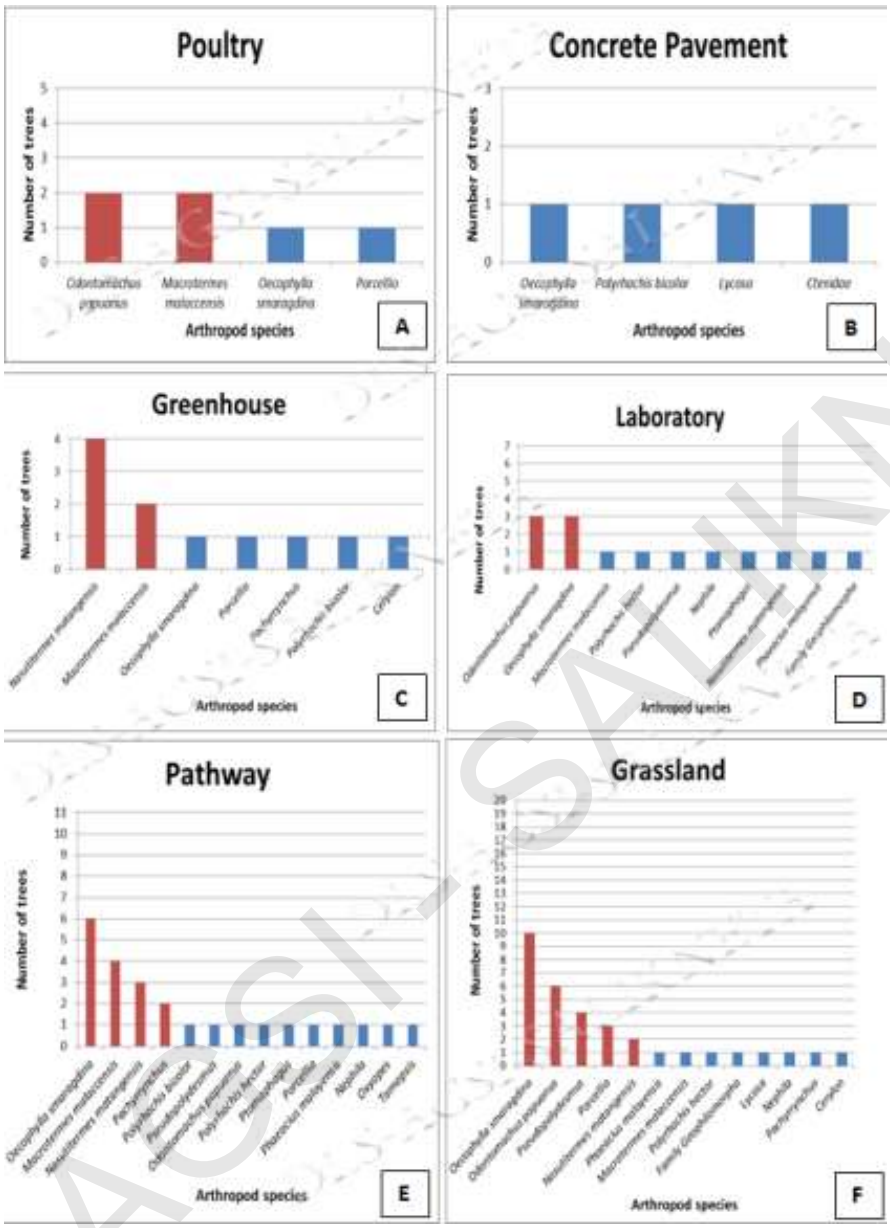

Figure 3. Summary of the occurrence of arthropods on mango trees located near the poultry (A), concrete pavement (B), greenhouse (C), laboratory (D), pathway (E) and grassland (F).

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