A SURVEY ON EXTERNAL PARASITIC MITES ON ASIAN HONEY BEES (APIS CERANA) IN ANURADHAPURA DISTRICT, SRI LANKA

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Honey bees are the most ecologically important insects engaged with the pollination of plants. The bee population has been decreasing over the last decade in the world due to many reasons such as the use of agrochemicals, pests and diseases and habitat destruction. Ectoparasites that live on honey bees have been identified as one of the major threats to honey bees and studies on these parasites in Sri Lanka is limited. Therefore, this study was carried out to investigate the ectoparasitic mite abundance and their identification associated with the Asian honey bees (Apis cerana) in the Anuradhapura district. Mites were collected from the bottom boards of selected domesticated bee hives located in the Anuradhapura district. The collected mite species were mounted on permanent slides for identification. Shannon-Wiener Index and Simpson's Index were used to assess the species diversity. There were six mite species and three bee lice and one unidentified parasitic species associated with the studied bee colonies. The mites are still in the process of identification up to the species level. However, one of the mite species reported from Seeppukulama area was the dominant species where the bee hives were maintained under poor hygienic conditions. The highest abundance of mites was also reported from Seeppukulama area. The highest mite diversity was reported from Kabaragollawa area, while the lowest was recorded from Seeppukulama area. It was noted that hygienic practices are important to keep the bee colonies in healthy condition while lowering the mite population. It is recommended to continue this study expanding geographically and using both man-made and natural bee hives.

Keywords: Asian honey bees, Classification, Mites, Sri Lanka, Unhygienic.