SPECIES DIVERSITY AND ABUNDANCE OF ARMORED SCALES (HEMIPTERA: DIASPIDIDAE) IN HOME GARDENS OF *GALLE* DISTRICT

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Armored scale insects have become a severe threat as a plant pest all over the world, but its diversity is poorly studied in Sri Lanka. Thus, it is required to be aware of available native species, potential threat species and their host range to predict potential future risks in Sri Lanka. A field survey was conducted in the *Galle* district of Sri Lanka to identify armored scale species to assess the species diversity and abundance, and document their host range. Homegardens located over 19 divisional secretaries in the *Galle* district were randomly selected as 10 home gardens per divisional secretary for sampling. Every plant within circular area of 20 m radius in each home garden were visually inspected and number of armored scales per 6.45 cm^2 of affected plant parts was counted to assess the abundance. The collected species were slide mounted and identified. Species diversity was calculated using Shannon and Weaver index ($H^{'}$). Host range of the collected species was also documented and a food web was developed to see the community nestedness. In addition, potential threat species of armored scales that could introduce to Sri Lanka from the neighbouring oriental regional countries were reviewed using a data matrix followed by a cluster analysis. Seventeen species of armored scales that belong to thirteen genera were identified. Among them, *Acutaspis perseae*, *Pseudaulacaspis leveri*, *Lepidosaphes esakii* and *Aspidiella hartii* were recorded for the first time from Sri Lanka. *Hemiberlesia lataniae* was the most abundant ($p>0.05$) species (27.9%) having wider host range followed by *Pseudaulacaspis* species (17.3%), *Pinnaspis* species (14.1%), *Aspidiotus destructor* (12.38%) and *Lepidosaphes gloveri* (7.7%). The highest species diversity ($H^{'}= 2.28$) were recorded in *Imaduwa* region and they were predominantly attacking *Cocos nucifera*, *Musa* species and *Citrus* species. The cluster analysis revealed that the armored scale fauna in Malaysia, India, Philippine, Indonesia and Hong Kong were more similar to Sri Lanka than other countries in the oriental region. Therefore, most invasive armored scale species in those countries; *Aonidiella citrina, Aulacaspis yasumatsui, Parlatoria pergandii* and *Unaspis yanonensis* can be recognized as potential threat species to Sri Lanka.

Keywords: Armored scales, Cluster analysis, Invasive species, Species diversity