

**DIVERSITY OF HETEROPTERAN FAUNA IN FARMLANDS AT
THIRUNELVELY, JAFFNA, SRI LANKA.**

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ABSTRACT

The Heteroptera represents the highest and most diverse group of insects. Many of them become significant pests in crop plants. Some are predaceous in habit. This research study was aimed to document terrestrial heteropteran fauna inhabiting various habitats in farmlands. Three different locations were selected at the Department of Agriculture Training Centre (DATC), Thirunelvely (9° 69' 6313'' N, 80° 03' 2123'' E), Jaffna and visited weekly to collect the samples of heteropteran species and to prepare a checklist of the same. A complete record of species composition will be a good database for any management practices against crop pests. A total of 185 specimens of suborder Heteroptera were collected from 24th August 2019 to 28th February 2020. The species were identified using possible taxonomic keys. Twenty-one species belonging to ten families were recorded. Among them, *Coranus fuscipennis*, *Rhynocoris fuscipes* and *Ectrychotes pilicornis* were predators. Other species were phytophagous and they were; *Coridius janus*, *Halys dentatus*, *Spilostethus hospes*, *Cletus trigonus*, *Nezara viridula*, *Chrysocoris purpureus*, *Eysarcoris sp*, *Leptocoris augur*, *Dieuches uniguttatus*, *Riptortus pedestris*, *Aethus sp*, *Bagrada picta*, *Acanthocoris scabrator*, *Leptocorisa acuta*, *Dystercus cingulatus*, *Homoeocerus sp*, *Graptostethus servus*, and *Coridius sp*. The guild structure further emphasizes the importance of phytophagous species (18 species) that outnumbered the predators (3 species). The pest species accounted for nearly 85.72% and the predatory form only accounted for nearly 14.29% of all taxa of true bugs collected. It is an evident from the present study, that the balance between the pest and the predatory true bugs was low in this study site.

Keywords: Heteroptera, Crop plants, Phytophagous, Pests, Predators