Ant diversity of Maliau Basin Conservation Area, Sabah, Malaysia

Abstract

The purpose of this study is to determine the diversity of ants in the Maliau Basin Conservation Area. Collection was made using fi ve different sampling protocols: Winkler Bag along 100m length transect, Pitfall Trap made in a belt transect 100m length, Pitfall Trap in 5x5m plot, Manual in 100m transect length, and Manual Random. A total of 210 morphospecies from 10 subfamilies were identifi ed to at least genus level. The species composition showed a comparatively high species diversity in the subfamily Myrmicinae, followed by Formicinae and Ponerinae. Manual collection in 100 m length recorded the highest number of species (96). Whereas, Pitfall Trap in 100m length recorded the lowest number of species (43). The Winkler Bag was the most effective in collecting individuals (2,992) followed by Pitfall Trap in 5x5m plot and Pitfall Trap in100 m length (2,341). Generally, the Pitfall Trap recorded the highest number of individuals as in most of the previous studies. This area has lower ant abundance but is higher in species richness.