



Oral presentation: O12

Ant community on the Campus of Kagoshima University, Japan

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Abstract

Ant sampling was conducted using cheese-baiting and time unit sampling during 27 July to 1st August, 2009 to clarify the ant diversity on the Campus of Kagoshima University. Seven habitat types were identified: hedge, grassland, road side, agricultural field, arboretum, forest edge and a house. A total of 20 plots were set up for the habitats and each plot was split into three quadrats. In each quadrat five cheese baits were placed (total 300 baits) and the attracted ants were preserved. At the same time 10-minute hand collecting of ants was repeated five times in each plot (total 100 units).

With cheese-baiting, the top three habitats in terms of species richness were the forest edge (17 species), arboretum and hedge (11 for each) (total for all habitats: 22 spp.), respectively. With time unit sampling, the top three habitats were hedge (23), arboretum (18), forest edge (15) (total for all: 32). The top three habitats observed for the combination of methods were hedge (24), arboretum (21) and the forest edge (17) (total for all: 32). With "Additive partitioning of species diversity" method, the species diversity was analyzed at three different levels: quadrat, plot and habitat. The average species number at the habitat level was 15.4, with the highest value between habitat diversity of 16.6, suggesting that the mosaic configuration of different habitats on the campus contributes to maintaining a rich ant diversity. However, the species numbers for hedge, arboretum and forest edge together comprised 84.4 % of the total species number. The hedge and arboretum shared 13 species in common, implying that the hedge serves as a temporary reservoir for several forest-inhabiting species.

Key words: ant, university campus, species number, habitat, hedge

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