

Soil Microarthropod Fauna at Mt. Jumbong, Nature Reserve Area

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Study of population density and biomass of soil microarthropods in soil, herbaceous leaf litter, and wood leaf litter was conducted at 4 sites with different flora in Mt. Jumbong, a nature reserve area, in Korea from Aug. 1994 to May 1996

Total 47,849 individuals of soil microarthropods in soil were collected and identified into 6 different classes, and 16 orders. The composition, densities, and dominant group of soil microarthropods were different among 4 sampling sites. Collembola was the most abundant group with 50.7% at south facing slope and 50.6% at the north-facing slope. But Acari was the most abundant group with 49.8% at Alt. 900 site and 47.7% at Alt. 1100 site. Two groups ranged 87-95% of total individuals. A/C ratio was high in Oct., but it was less than 1.0 respectively during the sampling seasons. As a result of biomass evaluation, ratio of Acari was decreased but ratio of Diplopoda, Coleoptera, Araneae, Diptera and Chilopoda were increased. About 70% of total orders and densities were found in less than 5cm depth of soil.

The composition, densities, and dominant group of soil microarthropods were different among soil, herbaceous litter, and

wood litter. Collembola was the most abundant group in herbaceous and wood litter. As of A/C ratio in soil, it was less than 1.0 respectively in litter during the sampling seasons. As a result of biomass evaluation in litter, ratio of Araneae and Collembola was very high, but ratio of Acari was low.