

B509 **Distribution of Tree Species along an Elevational Gradient in Mt. Jumbong**

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Distribution patterns of trees and herbs along an elevational and topographic gradient were studied in Mt. Jumbong, Kangwon Province in 1995 and 1997. Fifty one 10m × 10m permanent quadrats were established along two 500m N-W transects, and all the trees ≥ 2.5 cm dbh were tagged with numbered aluminum tags, their dbh measured and species identified. The distribution of herb species were also examined. On high elevational ridges or south-facing slopes, *Quercus mongolica* was the dominant species, while low elevational valley sites were dominated by *Fraxinus mandshurica*, *Ulmus laciniata*, and *Acer triflorum*. Subcanopy layer was dominated by *Acer pseudosieboldianum* and *Carpinus cordata*. Soils on south-facing slopes and ridges were low in pH and high in sand content, while soils in the valleys were high in organic matter, N, P, Ca, and Mg. The result of this study indicates that even a small variation in topography and elevation can significantly affect the distribution of tree species as well as herb species.

B510 **Dynamics of Soil Nutrients, Herb Layer Composition and Nutrient Absorption by Plants in the Immediate Postfire Year**

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Dynamics of soil nutrients, herb layer composition and the amount of nutrients absorbed by regenerating plants on a pine forest in the immediate postfire year were compared with those in a pine stand adjoining burned area in Daechon, Chungnam Province. Soil pH in crown firw, surface fire and unburned area was 4.8, 5.2, 6.4, respectively. Content of NH₄-N, Ca, K of soil in burned area were much higher than those in unburned area. *Arundinella hirta*, *Miscanthus sinensis*, *Indigofera Kirilowii* were the most abundant species in burned area. Herb layer in unburned area, *Spodiopogon sibiricus*, *Rhododendron mucronulatum* were the most abundant species. Standing biomass of herb layer in crown firw, surface fire and unburned area was 299.8 g/m², 121.2 g/m² and 71.6 g/m², respectively. Nutrient concentrations of plants in burned area, especially for phosphorus and potassium, were higher than those in unburned area.