

The Flora and Vegetation Structure of Mt. Man of Hwacheon-Gun

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ABSTRACT

This study was carried out to investigate the vegetation and vegetation structure of Mt. Man in Hwacheon Gun from April to October 2018. The survey site is located in the northern part of South Korea where the climate is similar to that of North Korea. The purpose of this study is to provide basic information for efficient ecological forest management after unification.

A total of 341 vascular plant taxa are recorded, representing 221 genera, 4 subspecies, 42 varieties and 6 forms in 84 families. Rare species, including *Crataegus komarovii* and *Amitostigma gracile* are found across 10 taxa; 8 families, 10 genera, 9 species, 1 variety. Naturalized Plants, including *Ambrosia artemisiifolia* and *Erigeron annuus* found across 11 taxa; 6 families, 10 genera, 11 species. Dominant tree species of the tree layer based on the highest importance values were: *Quercus mongolica* (23.47%), *Larix kaempferi* (11.43%), *Fraxinus rhynchophylla* (8.30%), in the subtree layer were: *Lindera obtusiloba* (11.38%), *Acer pictum* subsp. *mono* (11.33%), *Fraxinus rhynchophylla* (9.80%) and in the shrub layer were: *Lindera obtusiloba* (10.22%), *Fraxinus rhynchophylla* (8.43%), *Rubus crataegifolius* (8.00%), in the herb layer *Pteridium aquilinum* var. *latiusculum* (5.67%), *Oplismenus undulatifolius* (5.00%), *Lysimachia clethroides* (3.49%) respectively.

The species diversity of Mt. Man was 1.1764 in the tree layer, 1.2403 in the subtree layer, 1.4135 in the shrub layer, and 1.7416 in the herb layer.

In conclusion, if we utilize the flora and vegetation structure surveyed in Mt. Man, we can effectively manage the degraded forests with similar altitudes and climate zones in North Korea.

keyword : Flora, Vegetation Structure, Importance Values, Species Diversity

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