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Phytosociological Study of Boreal Coniferous Forests in Korea

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The present study was undertaken to classify and describe the boreal coniferous forests of Vaccinio-Piceetea Br.-Bl. 1939 in Korea by methods of ZM school of phytosociology. The investigations were carried out in Mts. Sulak, Odae, Taebaek, Deogyu, Chiri and Halla throughout South Korea. The homogeneous part of the boreal coniferous forests was analyzed by recording the combined scale of cover-abundance and sociability of all species, including cryptogamic as well as vascular plants. On the basis of the data obtained, the following vegetation units were recognized.

A. Mixed subarctic and cool temperate forests

Fagetea crenatae Miyawaki, Ohba et Murase 1964

Acero-Quercetalia mongolica Song 1988

Rhododendro-Quercion mongolicae Song 1988

Corylo-Quercetum mongolicae Song 1988

Fraxino-Abietetum koreanae Song 1988

B. Boreal coniferous forests

Vaccinio-Piceetea Br.-Bl. 1939

Abieti-Piceetalia jezoensis Song 1992

Abieti nephrolepidis-Piceion jezoensis Song 1991

Taxo-Pinetum pumilae Song et Nakanish 1985

Tsujjo-Abietetum nephrolepidis Song 1991

Abieti koreanae-Piceetum jezoensis Song 1991

Abietion koreanae Song 1991

Saso-Abietetum koreanae Song et Nakanishi 1985

Betulo saitoanae-Abietetum koreanae (Song et Nakanish 1985)

Song 1991

To make clear the phytogeographical aspect of the vegetation units, the communities were analyzed by the distribution types of their component species. The two alliances were known to show clearly different features in this respect. The interrelations among the associations classified were examined on the basis of the similarity index and the Bray-Curtis ordination method (1957). Also each of the vegetation units classified is discussed in terms of structural and environmental factors. Lastly the altitudinal zonation of the subalpine zone of South Korea is discussed from the phytosociological viewpoint.