

B508 Characteristic Species Distribution of the Baekdoo Great Mountain Chain at Kangwon Province, Korea

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Characteristics of species distribution in the Baekdoo Great Mountain Chain of Kangwon Province were discussed. Resulting from Detrending Correspondence Analysis(DCA) based on the floristic composition of 48 mountains, the mountains of the Baekdoo Chain tended to aggregate on DCA axis, representing its characteristic flora by sharing common species. High altitude, longitude near the East Sea and large number of vascular species were main factors for the distribution pattern. And exponential relationships between endemic rare species and number of species were clarified. Even though the regions of the Baekdoo Great Mountain Chain had been conserved relatively well, many regions have been faced to be disturbed for tourism, agriculture, forestry, livestock industry and mining since the local autonomy. Thus, the necessity for the establishment of large area network through the connection of scattered protected areas in the Baekdoo Great Mountain Chain was suggested. It would play a role as a core of nature conservation to sustain species diversity in Korea.

B509 Vegetation in the Baekdoo Great Mountain Chain

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To investigate the status of current vegetation in the Baekdoo Great Mountain Chain, 51 maps of actual vegetation and 51 maps of the degree of green naturalness were analyzed from Hyangno-Bong to Jiri-San, which includes the watershed of the chain. Forest area covered average 81.7% in the chain; deciduous forest 34.9%, coniferous forest 37.4%, plantation 8.9% and pasture 0.5%. If we considered the potential vegetation of cool temperate deciduous forest, coniferous forest, represented by *Pinus densiflora*, still remained in quite a wide area. Oak group, mainly *Quercus mongolica*, occupied relatively conserved regions including several national parks. *Larix leptolepis*, *Pinus rigida* and *Pinus koraiensis* were planted mostly in the south of the southern Kangwon-Do, except Jiri-San area. As we calculated the area over 8th degree of green naturalness, as indicators for the successional status and degree of naturalness, it was average 47.9% of forest area. Especially, it was over 80% in most regions of northern Kangwon-Do, but that of the area from Sokri-San to just before Jiri-San area was only 19%, which means that the vegetation in the southern regions of the Baekdoo Great Mountain Chain were poorly developed by plantations and disturbances such as logging, clearing and fire. Overall, the vegetation of the Baekdoo Great Mountain Chain is fairly in a good condition in terms of forest area and degree of naturalness, compared to the other areas. Moreover, several conservation regions have been designated by several authorities including 7 representative national parks and 2 natural ecosystem conservation zones. However, its condition varies regions to regions, thus the development of special policy for the south regions of Sokri-San is required: such as the protection of forest area and the prohibition of any more plantation in the area. For the better accomplishment, the Baekdoo Great Mountain Chain itself should be designated as a core preserved zone for green network, first.