ANALYSIS OF SPATIAL CORRELATION OF THE POPULATIONS OF *PLANTAGO ASIATICA L.* AT MT. GEUMJEONG

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ABSTRACT

Plantago asiatica is a common herbal medicine belonging to the genus *Plantago* in the family *Plantaginaceae* and is native to East Asia. Spatial distribution of this species was studied in an established 4 m x 4 m plot at Mountain Geumjeong in Korea during 2018. The values (R) of spatial distance (the rate of observed distance-to-expected distance) among the nearest individuals were higher than 1 and the significant index of C_R was > 2.58. If by this parameter, the small plots (1 m x 1 m and 2 m x 2 m) of *P. asiatica* were aggregately distributed in the forest community. However, *P. asiatica* was uniformly distributed in two large plots (2 m x 4 m and 4 m x 4 m). The most individuals of *P. asiatica* were clustered and the distribution pattern of the *P. asiatica* was quadrat-sampling dependent. The values dispersion index (C) were lower than 1 except one small plot (1 m x 1 m). Thus aggregation indices (CI) were positive, which indicate an aggregative distribution. The most mean crowding (M*) and patchiness index (PAI) showed positive values at all plots.

Keywords: Mountain Geumjeong, *Plantago asiatica*, spatial distribution.