

SL408

On the Growth and Interspecific Competition of *Disporum smilacinum* and *D. viridescens* (Liliaceae) Population

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The growth and interspecific competition in two pseudoperennial herb population - *Disporum smilacinum* and *D. viridescens* - were studied in the temperate forest of Namsan Park, Seoul, Korea.

The soil hardness and depth of litter layer affected to the increase of patch size in two populations. The rhizomes located in 1.9 cm depth in *D. smilacinum* and 3.3 cm depth in *D. viridescens* population. The mean length per rhizome was 8.5 cm in *D. smilacinum* population and 29.8 cm in *D. viridescens* population in the early of June, respectively. Therefore, the mean rhizome length of *D. viridescens* population was 3.5 times longer than that of *D. smilacinum*. And the diameter increases of patch were 17 cm in *D. smilacinum* and about 70 cm in *D. viridescens* in the maximum. The mean dry weight per rhizome was about 5 times heavier in *D. viridescens* than in *D. smilacinum*. The height of shoot and the dry weight of aboveground part were from 3 to 5 times higher and heavier in *D. viridescens* than in *D. smilacinum*.

On these results, it was thought that *D. viridescens* had an advantage over *D. smilacinum* in the habitat which soil is soft and litter layer is deep, and *vice versa*.