A Study on Classification and Important Value of
Patrinia saniculaefolia Population in Odaesan

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오대산 금마타리(*Patrinia saniculaefolia*)의
식물사회학적 개체군분류와 중요치 분석

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1. Objectives

This study was carried out to investigate vegetation structure and soil properties of *Patrinia saniculaefolia* population distributed for finding characteristics of habitat of *Patrinia saniculaefolia*, Korea endemic plant. The *Patrinia saniculaefolia* population were analyzed through the ecological access.

2. Materials and Methods

From August 2010 until September 2010, 2 m×2 m quadrate was established in native area of *Patrinia saniculaefolia* in order to record a dominants and coverage, and soil factors at 12 sites. The community character and classify community was analyzed with phytosociological method and species ordination was analyzed by DCCA(detrended canonical correspondence analysis).

3. Results

1). *Patrinia saniculaefolia* populations are distributed at more than 1 kilometers above sea level in Odaesan. The population of *Patrinia saniculaefolia* was divided as two dominant populations as *Rhododendron schlippenbachii* – *Agrostis clavata* dominant population, *Ainsliaea acerifolia* dominant population. The coverage of herb layer were 78% and 80% in the each dominant population, and number of appearance species was 10~24.

2). In the result of analysis of important value for *Patrinia saniculaefolia*, a number of species that were distributed in habitat of *Patrinia saniculaefolia* population were relatively uniform. It was dominated not by two or three kinds but many species and it was confirmed that the species diversity was relatively high.

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Table 1. Vegetation table of *Patrinia saniculaefolia* population.

Releve number	8	6	7	9	10	11	12	13	1	2	3	4	5
Altitude	1200	1310	1305	1207	1207	1100	1120	1120	1400	1400	1400	1315	1315
Direct	392	245	209	65	55	247	279	230	220	225	225	297	297
Slope dgree	35	28	5	30	30	10	28	28	21	20	22	17	17
Coverage of upper tree layer	8	–	16	18	18	17	13	14	13	14	14	17	18
Coverage of lower tree layer	–	–	90	5	75	95	70	5	70	75	70	80	80
Coverage of sh	25	–	10	3	30	40	10	20	20	25	20	15	5
	15	10	5	7	75	30	15	20	10	25	30	5	15
	95	95	80	65	60	55	95	75	75	70	70	95	90
Population type	*Rhododendron schlippenbachii* – *Agrostis clavata* dominant population								*Ainsliaea acerifolia* dominant population				
Patrinia saniculaefolia	4	4	3	3	3	2b	4	2b	4	3	3	2b	2b
Aruncus dioicus var. *kamtschaticus*	2b	2b		2b	2a		2a	2b	+	2b	+	+	2a
Rhododendron schlippenbachii	2a		2a	2a	+	+	2a	+	+		+		
Agrostis clavata		2a	2b	+	2a		+	2a					2a
Ainsliaea acerifolia			2a						2b	2b	2a	2a	2a
Pseudostellaria palibiniana									+	+	+	+	2a
Hepatica asiatica					+				+	+	+	+	+
Adenophora racemosa									2a	2a	2b	2b	

3). According to the results of DCCA, *Patrinia saniculaefolia* population were distributed in the high available slope dgree and Coverage of upper tree laye. The *Rhododendron schlippenbachii* – *Agrostis clavata* dominant population was situated on high slope degree, but *Ainsliaea acerifolia* dominant population was low slope dgree and high coverage of upper tree layer.
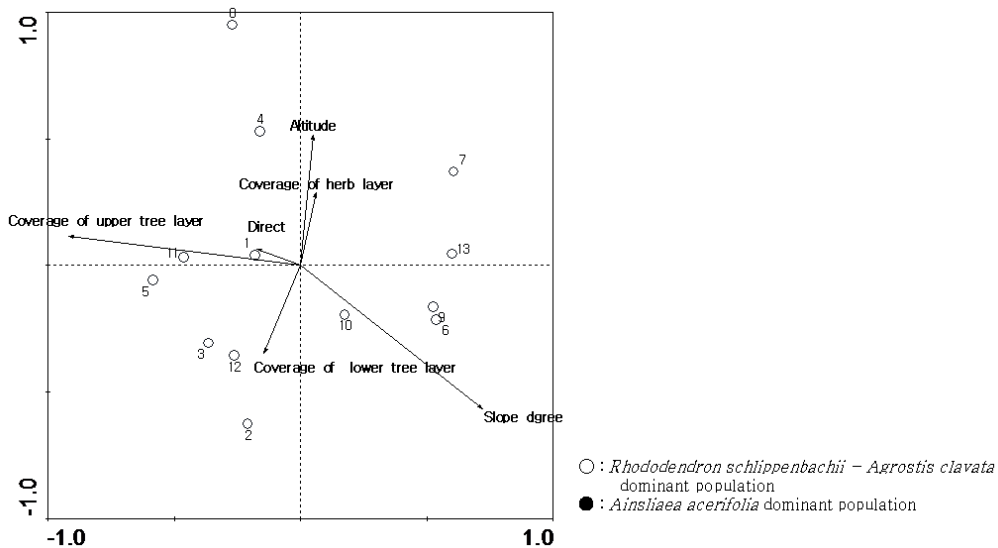

Figure 2. DCCA(detrended canonical correspondence analysis) ordination diagram with releve(○, ●) and environmental variables(arrow) of *Patrinia saniculaefolia* population.