

Table S1. Comparison of mean and range of environmental variables between the presence and absence spots of *S. altissima* in South Korea.

ID	Description	Presence (n=135)			Absence (n=380)		
		Mean	Min.	Max.	Mean	Min.	Max.
elev (m)	Elevation	50	0	437	115	-3	1,489
aspect	Aspect	2.41	1	4	2.52	1	4
slope (degree)	Slope	1.64	0.05	11.25	2.09	0.01	11.39
TPI	Topographic Position Index	-3.45	-49.37	33.12	-0.64	-37.62	65.5
TWI	Topographic Wetness Index	0.33	0.05	0.69	0.29	0.02	0.66
River_dist(m)	Distance from River	1,050	0	6,960	769	0	10,125
srad (kJ m ² day ⁻¹)	Solar radiation	17,655	15,058	19,448	16,759	14,523	19,419
HFP	Human Foot-Printing	26.87	6	46	23.93	4	47
bio_1 (°C)	Annual mean temp.	13.2	11.0	15.1	12.0	5.9	15.9
bio_2 (°C)	Mean diurnal range of temp.	9.5	6.7	11.0	10.1	6.4	11.8
bio_3	Isothermality	28.2	24.2	30.5	28.4	23.8	31.2
bio_4 (°C)	Temp. seasonality	912	763	1,041	955	720	1,052
bio_5 (°C)	Max. temp. of warmest month	29.5	27.5	30.6	28.8	22.3	31.0
bio_6 (°C)	Min. temp. of coldest month	-4.3	-8.2	1.6	-6.6	-13.2	2.8
bio_7 (°C)	Temp. annual range	33.8	27.5	36.8	35.4	26.5	38.6
bio_8 (°C)	Mean temp. of wettest quarter	24.0	22.5	24.7	23.2	17.1	24.9
bio_9 (°C)	Mean temp. of driest quarter	2.0	-2.0	8.0	0.0	-6.0	9.3
bio_10 (°C)	Mean temp. of warmest quarter	24.1	22.5	24.7	23.4	17.1	24.9
bio_11 (°C)	Mean temp. of coldest quarter	1.7	-2.0	5.8	-0.1	-6.0	7.2
bio_12 (mm)	Annual precipitation	1,331	1,148	1,849	1,283	1,049	1,930
bio_13 (mm)	Precip. of wettest month	267	213	328	281	204	379
bio_14 (mm)	Precip. of driest month	30.2	16.0	54.0	27.0	15.0	54.0
bio_15	Precip. seasonality	73.9	55.2	99.4	80.2	54.1	101.8
bio_16 (mm)	Precip. of wettest quarter	689	567	827	695	514	905
bio_17 (mm)	Precip. of driest quarter	109	62	204	96	58	209
bio_18 (mm)	Precip. of warmest quarter	670	532	774	681	474	905
bio_19 (mm)	Precip. of coldest quarter	109	62	208	96	59	216

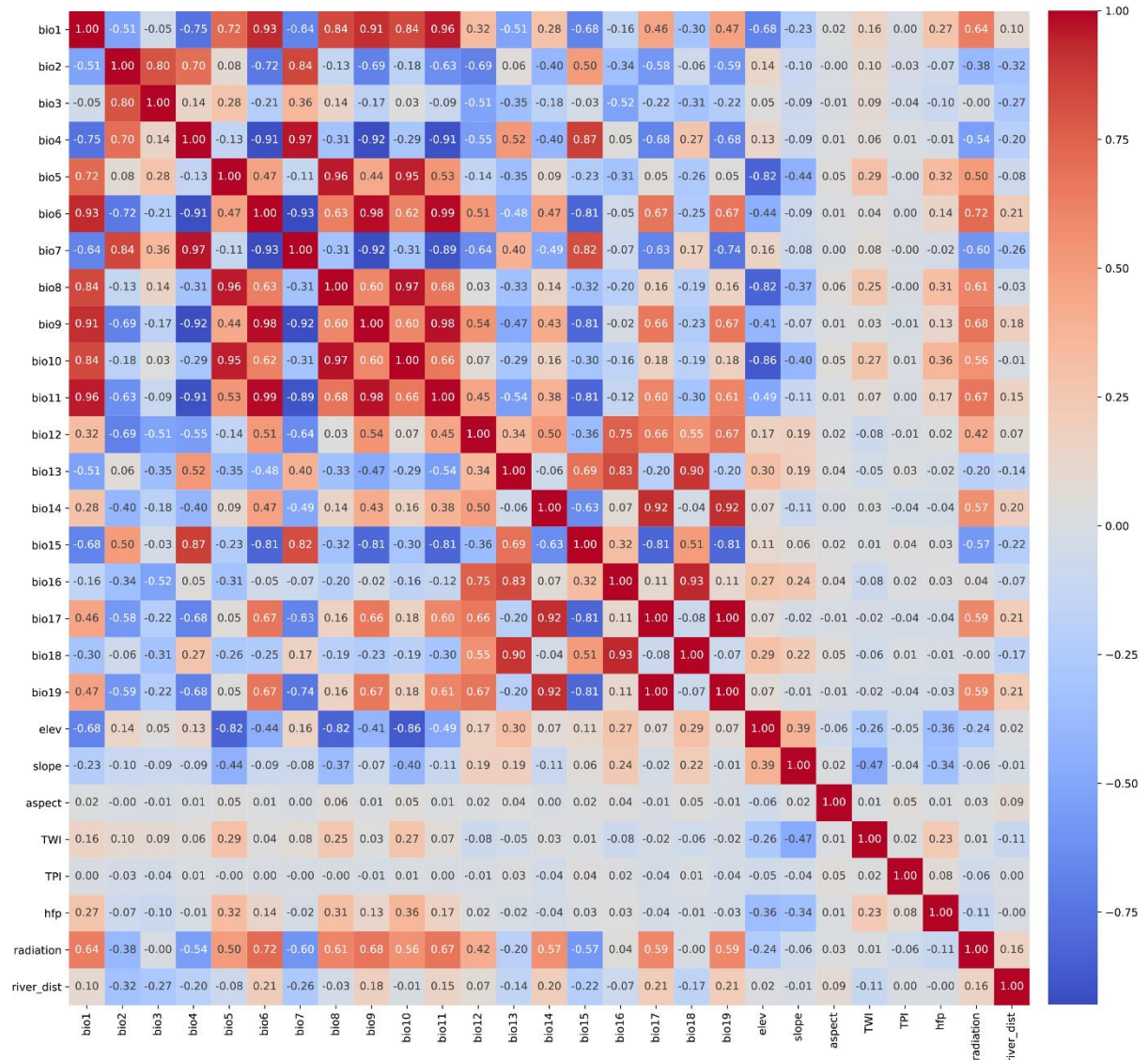


Figure 15. Pearson correlation coefficient matrix comparing 27 environmental variables. (Variable descriptions are given in Table S1).

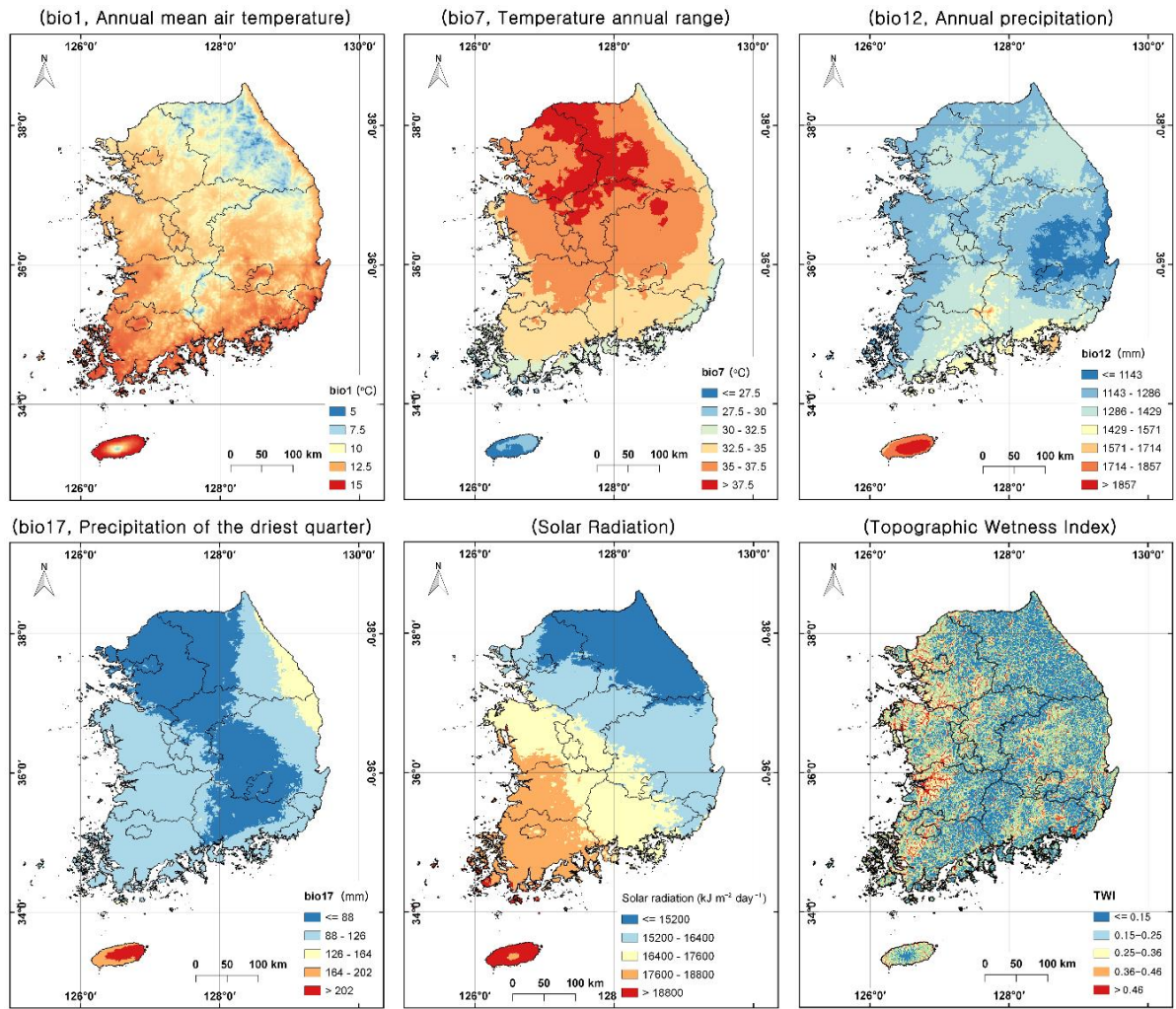


Figure 2S. Maps of six environmental variables pattern in South Korea.