Supplementary Material

Appendix 1 - About MaxEnt model.

Maxent is a prediction model based on the geographical coordinates of the actual distribution point of the species and the environmental variables of the species distribution area. This model is then used to simulate the possible distribution of the target species in the target area.

Entropy is the uncertainty of a random variable, and its calculation formula is:

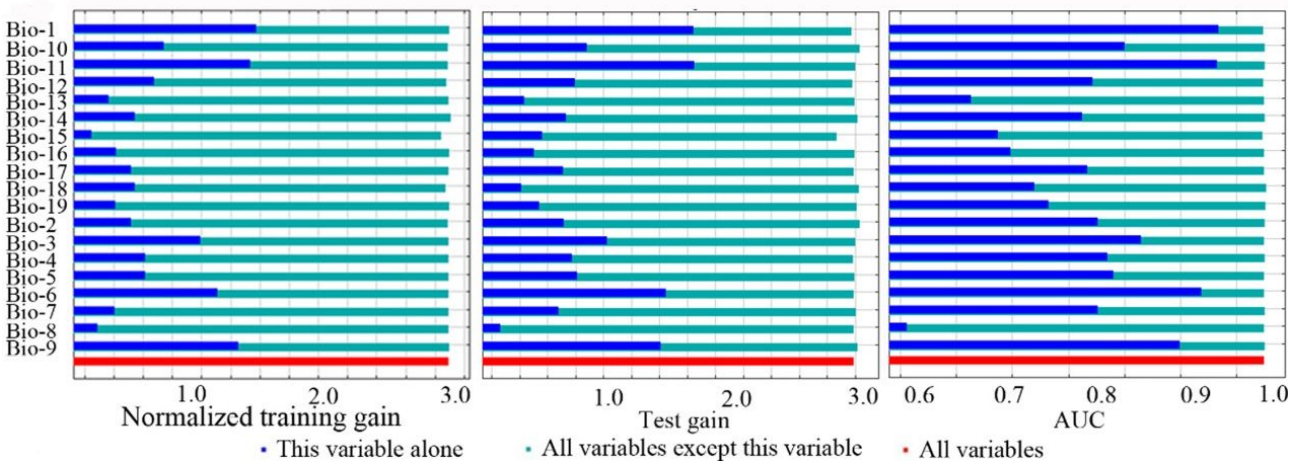
$$H(p)=-\sum_{x} p(x)\ln(x) \quad (1)$$

where x is environmental variables (independent variables); *p(x)* is appear probability of environmental variables (x), *H(p)* is entropy.

The probability distribution that satisfies the principle of maximum entropy is:

$$p^{*}=arg\max_{p\in P} H(p) \quad (2)$$

Fig. S1 - The results of Jackknife test measuring the importance of environmental variables affecting the distribution of *Larix kaempferi.*



Tab. S1 - The contribution rate and replacement important values of environmental variables to affect the distribution pattern of *Larix kaempferi.*

Environmental variable	Description	Contribution rate %	Permutation Important Value
Bio-1	Average annual temperature	22.8	5.3
Bio-12	Average annual precipitation	18.8	2.9
Bio-11	Average temperature in the coldest quarter	15.0	36.6
Bio-2	Monthly mean of diurnal temperature difference	13.1	2.3
Bio-18	Hottest quarter precipitation	8.0	13.9
Bio-4	Quarterly variation coefficient of temperature	6.4	2.6
Bio-10	Hottest quarterly average temperature	3.0	15.9
Bio-19	The coldest season precipitation	2.8	0.9
Bio-6	Coldest monthly minimum temperature	2.3	0.9
Bio-5	Hottest month maximum temperature	2.2	5.3
Bio-15	Quarterly variation coefficient of precipitation	2.2	4.6
Bio-9	Average temperature in the driest quarter	1.7	5.5
Bio-3	Isothermality	0.8	0.5
Bio-13	Wettest monthly precipitation	0.3	0.7
Bio-7	Annual temperature range	0.3	2.0
Bio-16	Driest season precipitation	0.2	0.0
Bio-8	Average temperature of wettest season	0.1	0.0
Bio-14	Driest monthly precipitation	0.0	0.0
Bio-17	Wettest season precipitation	0.0	0.3