



Supplement

The following supplementary materials are available for this article: Huang, C.-C., Hsu, C.-Y., Huang, K.-H., Hsu, T.-W., Huang, C.-C., Tsednee, M., Yeh, C.-M., Wang, W.-K. 2025 Genetic diversity and conservation of *Carex kobomugi* in Taiwan. *Taiwania* 70(3): 417-431. doi: 10.6165/tai.2024.70.417

Table S1. Species and accession number applied in this study.

species	accession number	remark
cpDNA		
<i>Carex arenaria</i>	OZ060148	NCBI
<i>Carex divulsa</i>	OZ060211	NCBI
<i>Carex olbiensis</i>	MK970806	NCBI
<i>Carex kobomugi</i>	FJ424683	NCBI
	FJ424684	NCBI
	FJ424685	NCBI
	FJ424686	NCBI
	FJ424687	NCBI
	FJ424688	NCBI
	FJ424689	NCBI
	FJ424690	NCBI
	PQ351396	this study
	FJ424691	NCBI
	FJ424692	NCBI
	FJ424693	NCBI
	FJ424694	NCBI
	FJ424695	NCBI
<i>Carex macrocephala</i>	FJ424696	NCBI
	FJ424697	NCBI
	FJ424698	NCBI
	FJ424699	NCBI
nrDNA		
<i>Carex arkansana</i>	MN761659	NCBI
<i>Carex fossa</i>	MN761961	NCBI
<i>Carex perglobosa</i>	MN761768	NCBI
<i>Carex preslii</i>	MN761754	NCBI
<i>Carex macrocephala</i>	AF285017	NCBI
	DQ461141	NCBI
	DQ998930	NCBI
	EU001029	NCBI
	EU001030	NCBI
	EU001031	NCBI
	MN761779	NCBI
	EU001022	NCBI
	DQ115194	NCBI
	JX644826	NCBI
	MN761780	NCBI
	PQ345421	this study

Table S2. The percentage contribution and permutation importance variables of *Carex kobomugi*.

Variable	Percent contribution	Permutation importance
bio_1	0.1	0
bio_2	1.3	2.1
bio_3	0.9	0.8
bio_4	18.9	2
bio_5	0	0
bio_6	0.2	0
bio_7	0.5	0.6
bio_8	0	
bio_9	0.5	7.1
bio_10	0.8	2
bio_11	0.9	0
bio_12	0.4	1.1
bio_13	0.1	0
bio_14	21	1.9
bio_15	0.3	0
bio_16	0	0.1
bio_17	0.2	0.5
bio_18	27.6	48.9
bio_19	0.2	0
elevation	26.1	32.9

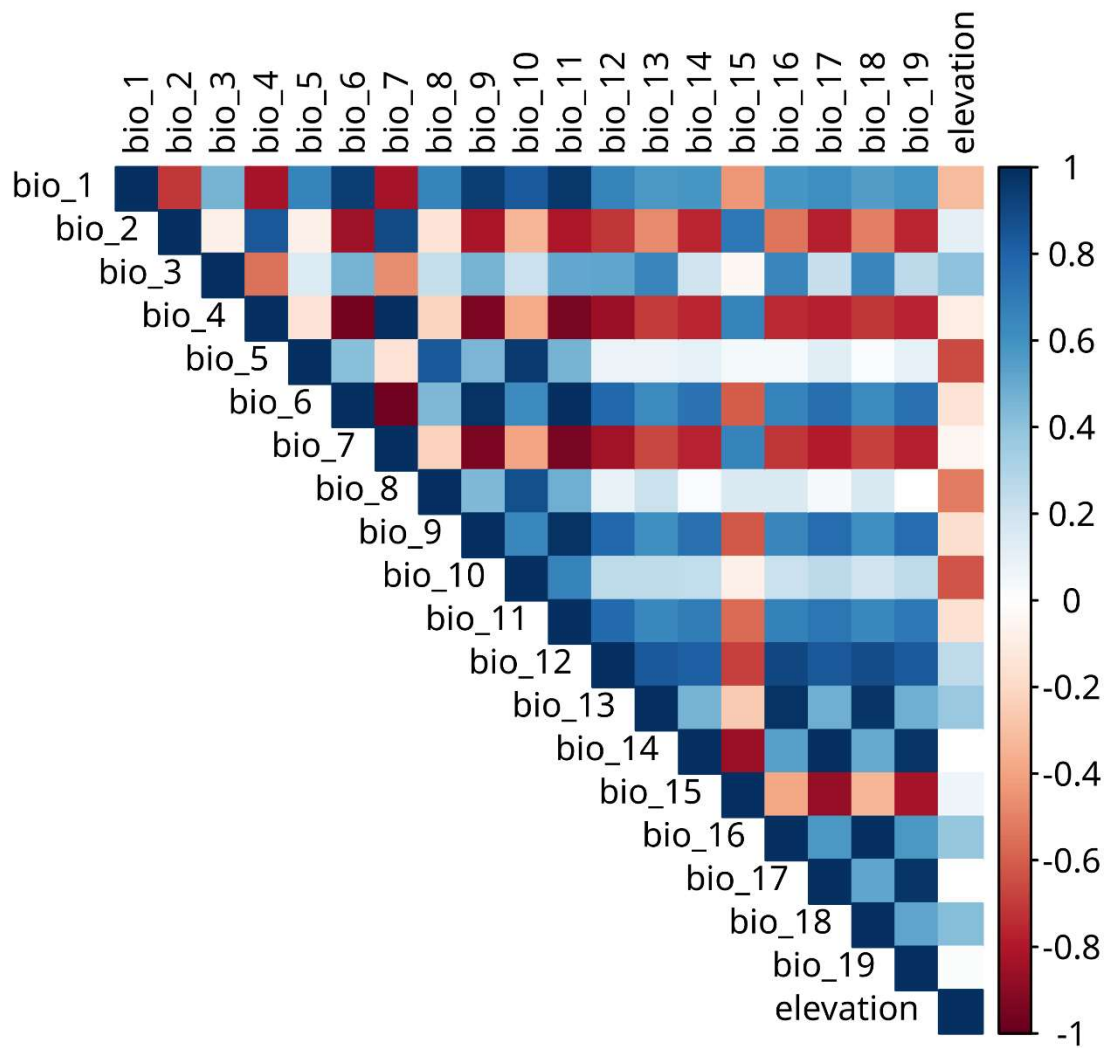


Fig. S1. Heat map of Pearson correlation of the 20 variables involved in MaxEnt modeling.

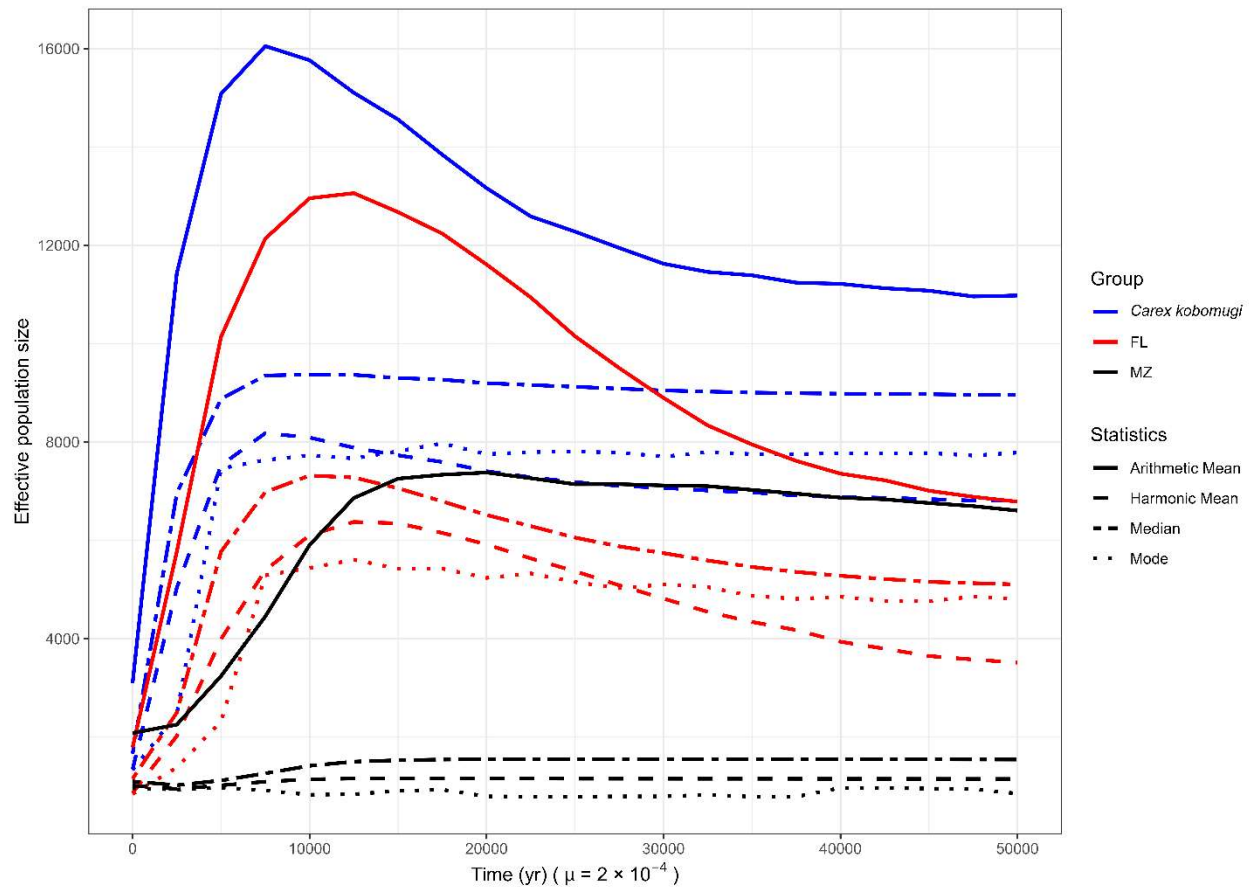


Fig. S2. Population size fluctuation of *Carex kobomugi*. μ , mutation rate per locus per generation. Blue: *Carex kobomugi*, red: FL, Fulon, black: MZ, Mazu. Solid: Arithmetic mean, dashed: Harmonic Mean, dotted: Mode, twodash: Median.

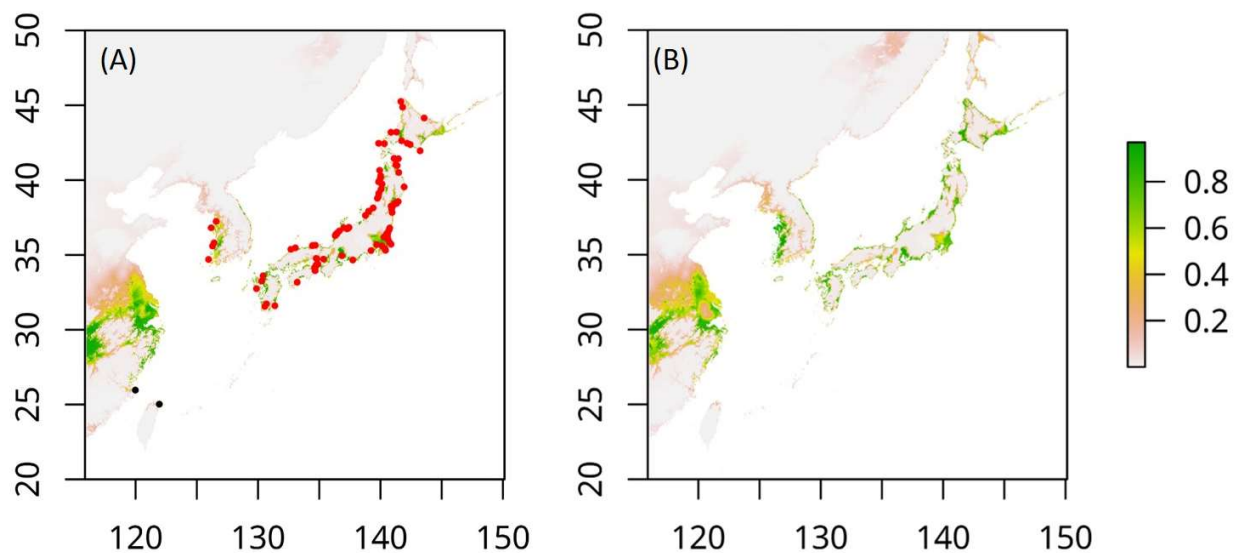


Fig. S3. Potential distributions of *Carex kobomugi*. **A.** Present (1970–2000) and **B.** future potential distribution (2080–2100) were predicted using MaxEnt based on four bioclimatic variables. Dots represent the extant occurrence points of *C. kobomugi* from GBIF (red) and this study (black).