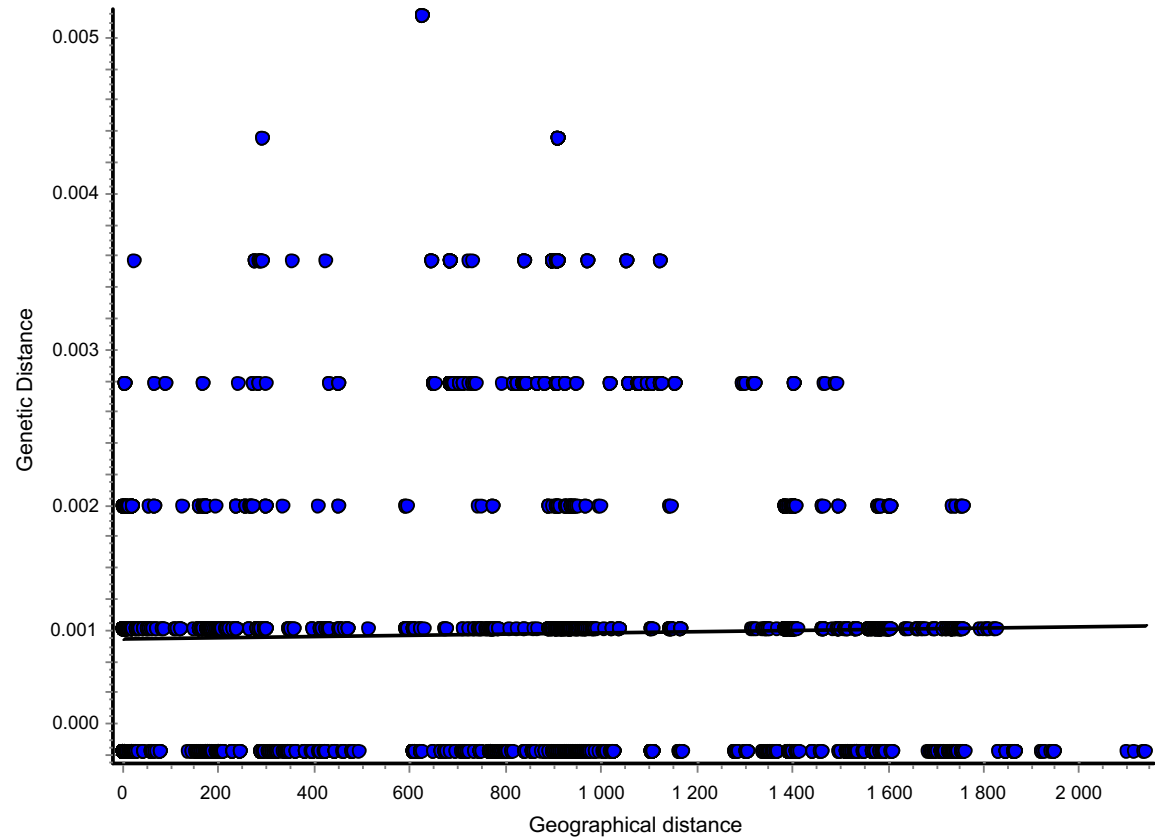
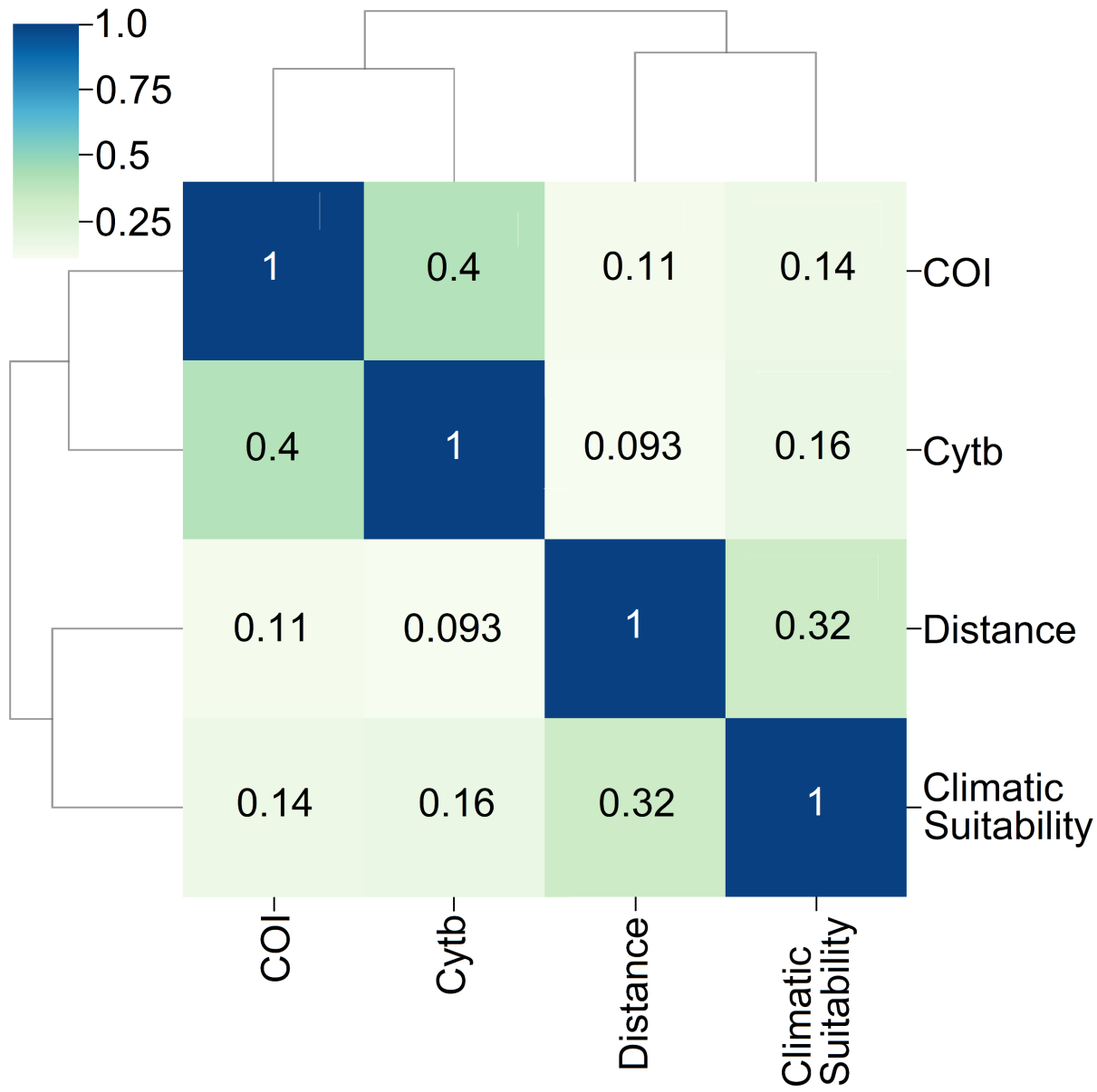






Supplementary Figure captions

File name: Supplementary Fig. 1.

Description: Inference of correlation between genetic and geographic distances of sampled individuals.

File name: Supplementary Fig. 2.

Description: Network similarity-based hierarchical clustering of the factors.

Supplementary Table 1. Uncorrected pairwise genetic COI distances (%) between identified haplotypes.

	Haplotype	1	2	3	4
1	COI_1	-			
2	COI_2	0.16	-		
3	COI_3	0.32	0.16	-	
4	COI_4	0.32	0.16	0.32	-

Supplementary Table 2. Uncorrected pairwise genetic Cytb distances (%) between identified haplotypes.

	Haplotype	1	2	3	4	5	6	7	8	9
1	Cytb_1	-								
2	Cytb_2	0.16	-							
3	Cytb_3	0.31	0.47	-						
4	Cytb_4	0.16	0.31	0.47	-					
5	Cytb_5	0.16	0.31	0.47	0.31	-				
6	Cytb_6	0.16	0.31	0.16	0.31	0.31	-			
7	Cytb_7	0.16	0.31	0.47	0.31	0.31	0.31	-		
8	Cytb_8	0.16	0.31	0.47	0.31	0.31	0.31	0.31	-	
9	Cytb_9	0.16	0.31	0.47	0.31	0.31	0.31	0.31	0.31	-

Supplementary Table 3. The used climatic variables in modelling.

Variable	Description	Unit
bio1	Mean Annual Temperature	(°C)
bio2	Mean Diurnal Range (Mean of monthly (max temp - min temp))	(°C)
bio3	Isothermality (bio2/bio7) (×100)	(°C)
bio4	Temperature Seasonality (standard deviation ×100)	(°C)
bio5	Max Temperature of Warmest Month	(°C)
bio6	Min Temperature of Coldest Month	(°C)
bio7	Temperature Annual Range (bio5-bio6)	(°C)
bio8	Mean Temperature of Wettest Quarter	(°C)
bio9	Mean Temperature of Driest Quarter	(°C)
bio10	Mean Temperature of Warmest Quarter	(°C)
bio11	Mean Temperature of Coldest Quarterx	(°C)
bio12	Annual Precipitation Sum	mm
bio13	Precipitation of Wettest Month	mm
bio14	Precipitation of Driest Month	mm
bio15	Precipitation Seasonality (Coefficient of Variation)	mm
bio16	Precipitation of Wettest Quarter	mm
bio17	Precipitation of Driest Quarter	mm
bio18	Precipitation of Warmest Quarter	mm
bio19	Precipitation of Coldest Quarter	mm

Supplementary Table 4. The distribution-limiting extrema of *Phlebotomus mascittii*.

Variable	min	max
bio1	7.9°C	16.7°C
bio2	3.7°C	8.8°C
bio3	1.9°C	3.3°C
bio4	4620°C	7785°C
bio5	214°C	302°C
bio6	-5.2°C	8.2°C
bio7	17.6°C	30.8°C
bio8	3.4°C	20.7°C
bio9	-0.5°C	24.8°C
bio10	17.2°C	25.8°C
bio11	-1.0°C	9.9°C
bio12	551 mm	1846 mm
bio13	65 mm	219 mm
bio14	10 mm	103 mm
bio15	10 mm	53 mm
bio16	195 mm	641 mm
bio17	39 mm	324 mm
bio18	49 mm	590 mm
bio19	99 mm	406 mm