Table S1. All environmental variables used in this study.

| Abbreviation | Description |
|---|---|
| BIO1 | Annual mean temperature(℃) |
| BIO2 | Mean diurnal range ( monthly mean (max temp- min temp))(℃) |
| BIO3 | Isothermally (BIO2/BIO7)×100 |
| BIO4 | Temperature seasonality (standard deviation×100)(C of V) |
| BIO5 | Max temperature of the warmest month(℃) |
| BIO6 | Min temperature of the coldest month(℃) |
| BIO7 | Temperature annual range(BIO5-BIO6)(℃) |
| BIO8 | Mean temperature of the wettest quarter(℃) |
| BIO9 | Mean temperature of the driest quarter(℃) |
| BIO10 | Mean temperature of the warmest quarter(℃) |
| BIO11 | Mean temperature of the coldest quarter(℃) |
| BIO12 | Annual precipitation(mm) |
| BIO13 | Precipitation of the wettest month(mm) |
| BIO14 | Precipitation of the driest month(mm) |
| BIO15 | Precipitation seasonality(C of V) |
| BIO16 | Precipitation of the wettest quarter(mm) |
| BIO17 | Precipitation of the driest quarter(mm) |
| BIO18 | Precipitation of the warmest quarter(mm) |
| BIO19 | Precipitation of the coldest quarter(mm) |
| gm_ve_v2 | Percentage of vegetation coverage |

Figure S1 Correlation heatmap of climatic variables.

