

SM2 List of Bioclimatic and Environmental variables considered in the research with summary of hierarchical cluster and VIF analysis. Variables included in final models presented a correlation coefficient < 0.7 (in red, see below) and VIF <3.

Bioclimatic variables

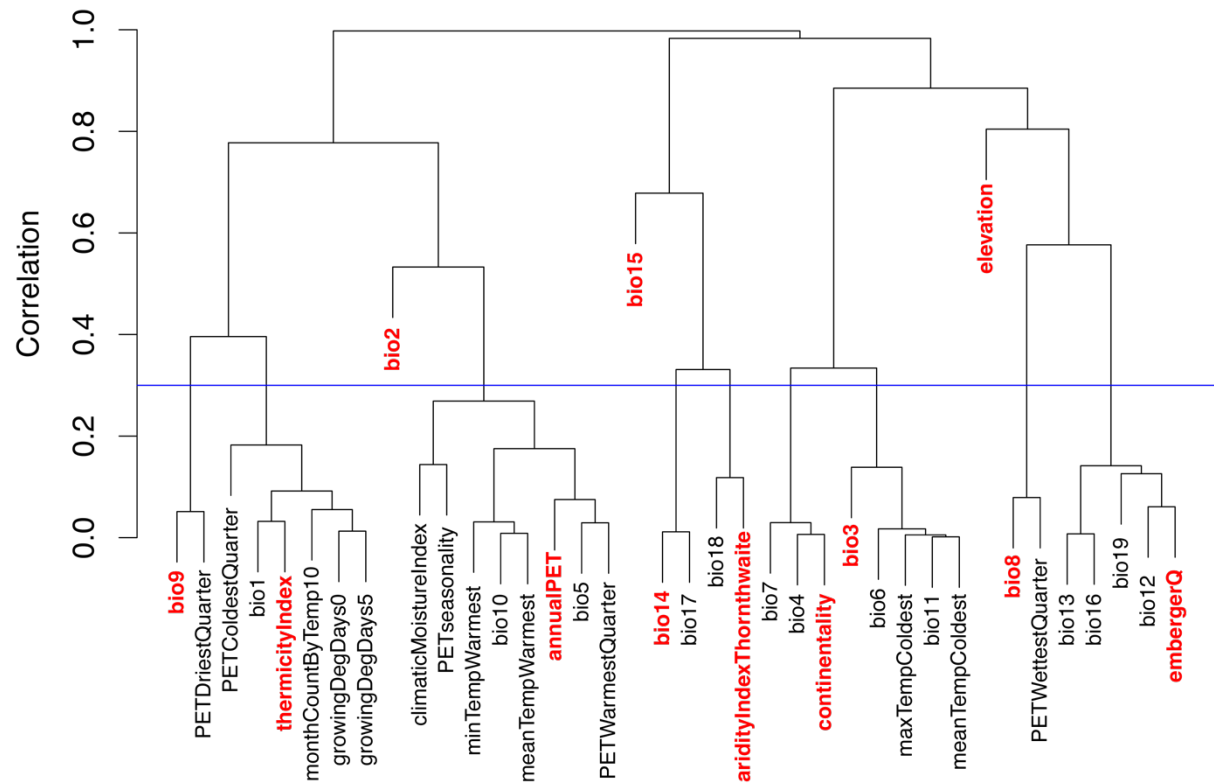
Bio1 = Annual Mean Temperature
Bio2 = Mean Diurnal Range (Mean of monthly (max temp - min temp))
Bio3 = Isothermality (BIO2/BIO7) ($\times 100$)
Bio4 = Temperature Seasonality (standard deviation $\times 100$)
Bio5 = Max Temperature of Warmest Month
Bio6 = Min Temperature of Coldest Month
Bio7 = Temperature Annual Range (BIO5-BIO6)
Bio8 = Mean Temperature of Wettest Quarter
Bio9 = Mean Temperature of Driest Quarter
Bio10 = Mean Temperature of Warmest Quarter
Bio11 = Mean Temperature of Coldest Quarter
Bio12 = Annual Precipitation
Bio13 = Precipitation of Wettest Month
Bio14 = Precipitation of Driest Month
Bio15 = Precipitation Seasonality (Coefficient of Variation)
Bio16 = Precipitation of Wettest Quarter
Bio17 = Precipitation of Driest Quarter
Bio18 = Precipitation of Warmest Quarter
Bio19 = Precipitation of Coldest Quarter

Environmental variables

annualPET = annual potential evapotranspiration: a measure of the ability of the atmosphere to remove water through evapotranspiration processes, given unlimited moisture
aridityIndexThornthwaite = Thornthwaite aridity index: Index of the degree of water deficit below water need
climaticMoistureIndex = a metric of relative wetness and aridity
continentality = average temp. of warmest month - average temp. of coldest month
embergerQ = Emberger's pluviothermic quotient: a metric that was designed to differentiate among Mediterranean type climates
growingDegDays0 = sum of mean monthly temperature for months with mean temperature greater than 0°C multiplied by number of days
growingDegDays5 = sum of mean monthly temperature for months with mean temperature greater than 5°C multiplied by number of days
maxTempColdestMonth = max. temp. of the coldest month
minTempWarmestMonth = min. temp. of the warmest month
meanTempColdest = mean temp. of the coldest month
meanTempWarmest = mean temp. of the warmest month
monthCountByTemp10 = count of the number of months with mean temp greater than 10°C
PETColdestQuarter = mean monthly PET of coldest quarter
PETDriestQuarter = mean monthly PET of driest quarter
PETseasonality = monthly variability in potential evapotranspiration
PETWarmestQuarter = mean monthly PET of warmest quarter
PETWettestQuarter = mean monthly PET of wettest quarter

thermInd = compensated thermicity index: sum of mean annual temp., min. temp. of coldest month, max. temp. of the coldest month, x 10, with compensations for better comparability across the globe

Dendrogram Correlation Variables



Results for the Variance Inflation Factor (VIF) analysis (just variables with $VIF < 3$ were retained).

Bio15 = 1.237212

Bio8 = 1.679064

Bio2 = 2.385642

Elevation = 1.654045

Aridity Index Thornthwaite = 2.327552

Continentality = 1.973167

embergerQ = 2.679118