

Table 1. Description of the variables and factors included in the models

Variables classification	Variable details and abbreviation	Unit	(C.imicola model) Included	(AHS model) Included
Bioclimatic variables	Annual mean temperature (bio 1)	°C	N	N
	Mean diurnal range (bio 2)	°C	Y	Y
	Isothermality (bio 3)	-	N	N
	Temperature seasonality (bio 4)	°C	Y	N
	Max temperature of warmest month (bio 5)	°C	Y	N
	Min temperature of coldest month (bio 6)	°C	N	N
	Temperature annual range (bio 7)	°C	N	Y
	Mean temperature of wettest quarter (bio 8)	°C	N	Y
	Mean temperature of driest quarter (bio 9)	°C	Y	Y
	Mean temperature of warmest quarter (bio 10)	°C	N	N
	Mean temperature of coldest quarter (bio 11)	°C	Y	N
	Annual precipitation (bio 12)	mm	Y	N
	Precipitation of wettest month (bio 13)	mm	N	N
	Precipitation of driest month (bio 14)	mm	Y	N
	Precipitation seasonality (bio 15)	%	Y	Y
	Precipitation of wettest quarter (bio 16)	mm	N	Y
	Precipitation of driest quarter (bio 17)	mm	N	N
	Precipitation of warmest quarter (bio 18)	mm	Y	Y
	Precipitation of coldest quarter (bio 19)	mm	Y	Y
Global land cover characterization (glcc)	Evergreen Needleleaf Forest (1)	%	Y	Y
	Evergreen Broadleaf Forest (2)			
	Deciduous Needleleaf Forest (3)			
	Deciduous Broadleaf Forest (4)			
	Mixed Forest (5)			
	Closed Shrublands (6)			
	Open Shrublands (7)			
	Woody Savannas (8)			
	Savannas (9)			
	Grasslands (10)			
	Permanent Wetlands (11)			
	Croplands (12)			
	Urban and Built-Up (13)			
	Cropland/Natural Vegetation Mosaic (14)			
	Snow and Ice (15)			
	Barren or Sparsely Vegetated (16)			
	Water Bodies (17)			
Horse distribution density	Horse density (horse)	head/km <sup>2</sup>	N	Y

