

Assessing the Climatic Vulnerability of the *Micrurus sangilensis* (Niceforo Maria, 1942) under Future Scenarios

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SUPPLEMENTARY MATERIAL

Table 1. Description of the 19 climatic variables from Worldclim and the ones used in the analysis.

WorldClim variable	Description of the variable	Included in the analyses
bio 1	Annual Mean Temperature	Yes
bio 2	Mean Diurnal Range (Mean of monthly (max temp - min temp))	Yes
bio 3	Isothermality (bio 2/bio 7) ($\times 100$)	Yes
bio 4	Temperature Seasonality (standard deviation $\times 100$)	Yes
bio 5	Max Temperature of Warmest Month	Yes
bio 6	Min Temperature of Coldest Month	Yes
bio 7	Temperature Annual Range (bio 5-bio 6)	Yes
bio 8	Mean Temperature of Driest Quarter	No
bio 9	Mean Temperature of Wettest Quarter	No
bio 10	Mean Temperature of Warmest Quarter	Yes
bio 11	Mean Temperature of Coldest Quarter	Yes
bio 12	Annual Precipitation	Yes
bio 13	Precipitation of Wettest Month	Yes
bio 14	Precipitation of Driest Month	Yes
bio 15	Precipitation Seasonality (Coefficient of Variation)	Yes
bio 16	Precipitation of Wettest Quarter	Yes
bio 17	Precipitation of Driest Quarter	Yes
bio 18	Precipitation of Warmest Quarter	No
bio 19	Precipitation of Coldest Quarter	No

Table 2. Description of the various WorldClim variable sets used in Kuenm. Dashed cells indicate the model set selected based on Kuenm metrics.

WorldClim variable	Set 1	Set 2	Set 3	Set 4	Set 5
Bio_1			X	X	
Bio_2			X	X	X
Bio_3			X	X	X
Bio_4	X	X	X	X	X
Bio_5		X	X	X	
Bio_6			X	X	
Bio_7				X	X
Bio_10	X			X	
Bio_11	X			X	
Bio_12					
Bio_13		X			
Bio_14	X			X	
Bio_15					
Bio_16	X	X			X
Bio_17		X			X

Table 3. Performance statistics for the best models selected based on the pre-defined Kuenm criteria.

Model	M_0.7_F_lq_Set 5	M_0.8_F_lq_Set 5	M_0.9_F_lq_Set 5
Mean_AUC_ratio	1.482	1.485	1.484
Partial_ROC	0	0	0
Omission_rate_at_5%	0	0	0
AICc	1194.3	1195.33	1196.2
delta_AICc	0.000	1.032	1.878
W_AICc	0.997	0.373	0.196
num_parameters	7	7	7

Note: In the selected model, The M stands for Model, and the 0.7 represents the regularization multiplier, F_lq: is feature classes used, where "lq" means linear and quadratic features used in the environmental construction curve. Set 5: This refers to the environmental variable set = bio 2, bio 3, bio 4, bio 7, bio 10, bio 6, bio 17.