

Supplemental material for

“Predicting the Current and Future Distribution of the Invasive Weed *Ageratina adenophora* in the Chitwan–Annapurna Landscape, Nepal”, by Anju Sharma Poudel, Bharat Babu Shrestha, Mohan Dev Joshi, Rangaswamy Muniappan, Abhijin Adiga, Srinivasan Venkatramanan, and Pramod Kumar Jha, published in *Mountain Research and Development* 40(2), 2020. (See <https://bioone.org/toc/mred/40/2>)

APPENDIX S1 Bioclimatic variables used for modeling suitable habitat of *Ageratina adenophora*.

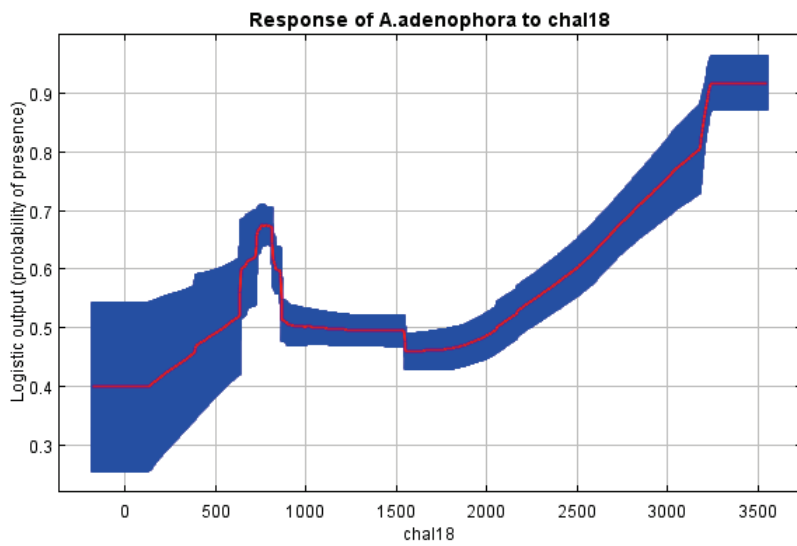
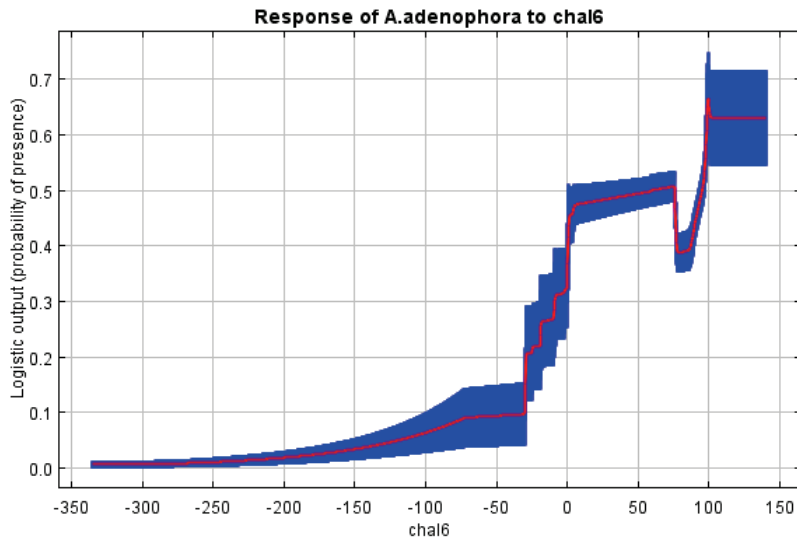
Code	Variables name
ALT	Altitude
ASPECT	Aspect
SLOPE	Slope
BIO 1	Annual Mean Temperature
BIO 2	Mean Diurnal Range (Mean of Monthly (Max temp - Min Temp))
BIO 3	Isothermality (BIO 2/BIO 7) (*100)
BIO 4	Temperature Seasonality (standard deviation * 100)
BIO 5	Max Temperature of Warmest Month
BIO 6	Min Temperature of Coldest Month
BIO 7	Temperature Annual Range (BIO 5 – BIO 6)
BIO 8	Mean Temperature of Wettest Quarter
BIO 9	Mean Temperature of Driest Quarter
BIO 10	Mean Temperature of Warmest Quarter
BIO 11	Mean Temperature of Coldest Quarter
BIO 12	Annual Precipitation
BIO 13	Precipitation of Wettest Month
BIO 14	Precipitation of Driest Month
BIO 15	Precipitation Seasonality (Coefficient of Variation)
BIO 16	Precipitation of Wettest Quarter
BIO 17	Precipitation of Driest Quarter
BIO 18	Precipitation of Warmest Quarter
BIO 19	Precipitation of Coldest Quarter

APPENDIX S2 Correlation matrix of 19 bioclimatic and 3 topographic variables.

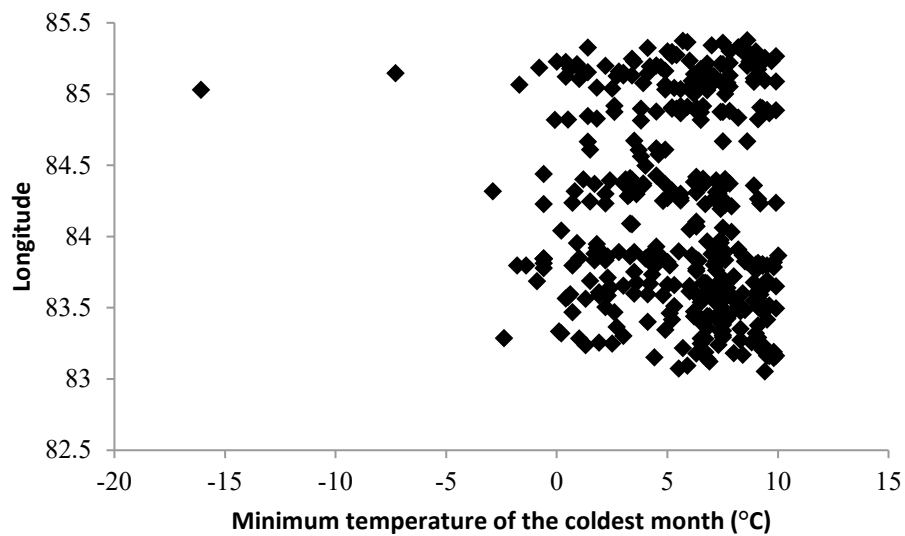
Layer	Altitude	bio1	aspect	slope	bio10	bio11	bio12	bio13	bio14	bio15	bio16	bio17	bio18	bio19	bio2	bio3	bio4	bio5	bio6	bio7	bio8	bio9
altitude	1																					
bio1	-1.0	1																				
aspect	0.0	0.0	1																			
slope	0.4	-0.4	0.0	1																		
bio10	-1.0	1.0	0.0	-0.4	1																	
bio11	-1.0	1.0	0.0	-0.4	1.0	1																
bio12	-0.9	0.8	0.0	-0.4	0.8	0.8	1															
bio13	-0.9	0.8	0.0	-0.4	0.8	0.8	1.0	1														
bio14	-0.4	0.4	0.0	-0.1	0.4	0.4	0.3	0.3	1													
bio15	-0.7	0.7	0.0	-0.3	0.7	0.7	0.8	0.8	0.1	1												
bio16	-0.9	0.8	0.0	-0.4	0.8	0.8	1.0	1.0	0.3	0.8	1											
bio17	0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	0.6	-0.5	-0.1	1										
bio18	-0.7	0.7	0.0	-0.3	0.7	0.7	1.0	1.0	0.3	0.7	1.0	-0.1	1									
bio19	0.4	-0.4	-0.1	0.1	-0.4	-0.4	-0.4	-0.4	0.4	-0.7	-0.4	0.9	-0.4	1								
bio2	0.5	-0.5	0.0	0.0	-0.4	-0.5	-0.5	-0.5	-0.5	-0.2	-0.5	-0.3	-0.6	-0.1	1							
bio3	0.2	-0.2	0.1	0.4	-0.2	-0.1	0.0	0.0	-0.2	0.0	0.0	-0.5	0.1	-0.3	-0.2	1						
bio4	0.4	-0.4	0.0	-0.2	-0.4	-0.5	-0.5	-0.5	-0.3	-0.2	-0.5	0.1	-0.6	0.2	0.8	-0.6	1					
bio5	-1.0	1.0	0.0	-0.5	1.0	1.0	0.8	0.8	0.4	0.7	0.8	-0.1	0.7	-0.4	-0.4	-0.2	-0.4	1				
bio6	-1.0	1.0	0.0	-0.4	1.0	1.0	0.9	0.8	0.4	0.7	0.8	-0.1	0.7	-0.4	-0.5	-0.1	-0.5	1.0	1			
bio7	0.3	-0.3	0.0	-0.2	-0.3	-0.3	-0.4	-0.4	-0.3	-0.1	-0.4	0.0	-0.5	0.0	0.9	-0.6	1.0	-0.2	-0.4	1		
bio8	-1.0	1.0	0.0	-0.4	1.0	1.0	0.8	0.8	0.4	0.7	0.8	-0.1	0.7	-0.4	-0.5	-0.2	-0.4	1.0	1.0	-0.3	1	
bio9	-1.0	1.0	0.0	-0.4	1.0	1.0	0.8	0.8	0.4	0.7	0.8	-0.1	0.7	-0.4	-0.5	-0.2	-0.4	1.0	1.0	-0.3	1.0	1

Pearson's correlation coefficient (r) ≥ 0.8 has been highlighted in yellow

APPENDIX S3 Marginal response curves of the 2 highly contributing predictor variables (A) Bio 6, minimum temperature of coldest month, and (B) Bio 18, precipitation of the warmest quarter.



APPENDIX S4 Scatter plot of longitude of occurrence points and minimum temperature of the coldest month for current climate.



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