

Table S2. Percentage contribution of environmental predictor variables used for *Spodoptera frugiperda* models

Code	Bioclimatic variables*	Unit	% contribution of environmental variables		
			Current	RCP8.5	
				GISS-E2-R	HadGEM2-ES
Bio1	Annual Mean Temperature	°C	17.7	2.6	18.0
Bio2	Mean Diurnal Range (Mean of monthly (max temp - min temp))	°C	0.9	1.1	0.3
Bio5	Max Temperature of Warmest Month	°C	27.2	18.3	1.7
Bio6	Min Temperature of Coldest Month	°C	1.0	0.5	0.7
Bio12	Annual Precipitation	mm	22.4	7.5	9.7
Bio16	Precipitation of Wettest Quarter	mm	15.7	1.4	19.4
Bio17	Precipitation of Driest Quarter	mm	15.1	12.8	6.0
Total percentage contribution			100	100	

* Bioclimatic variables in bold represent the intuitively preselected environmental layers that contributed best in final models.