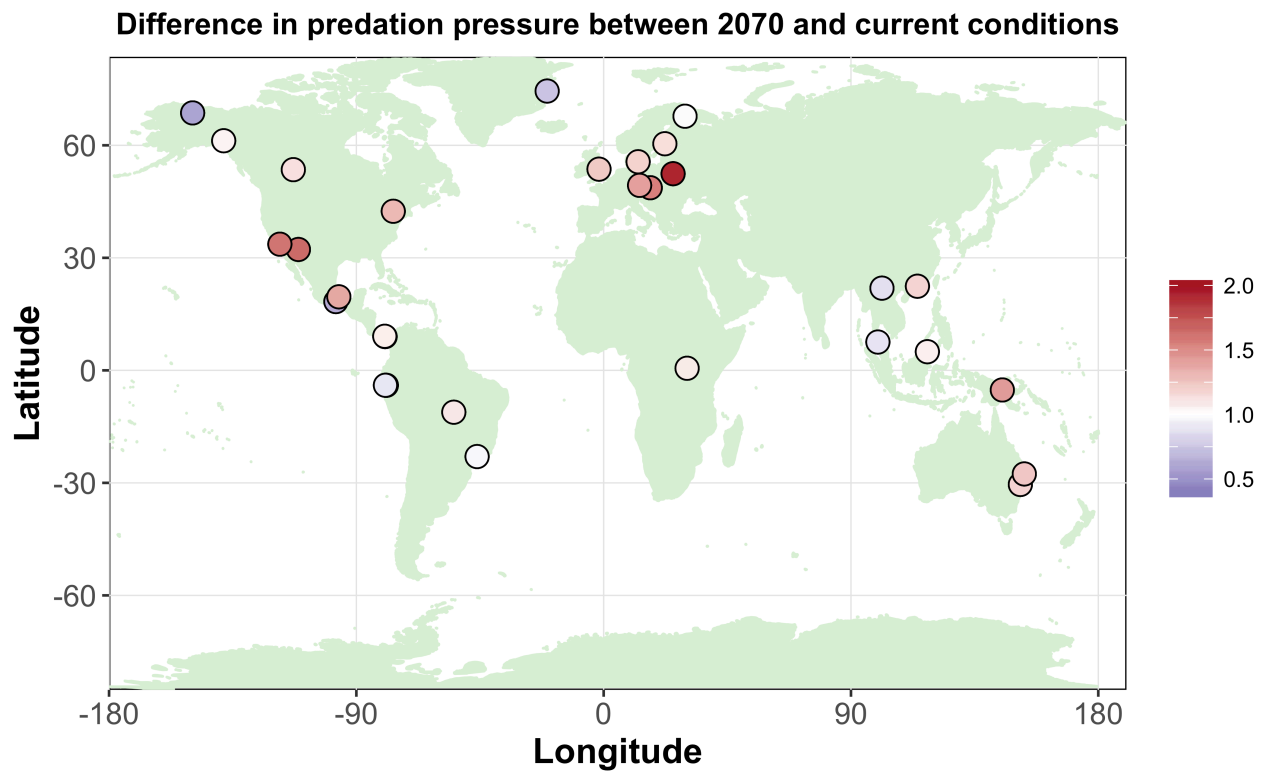
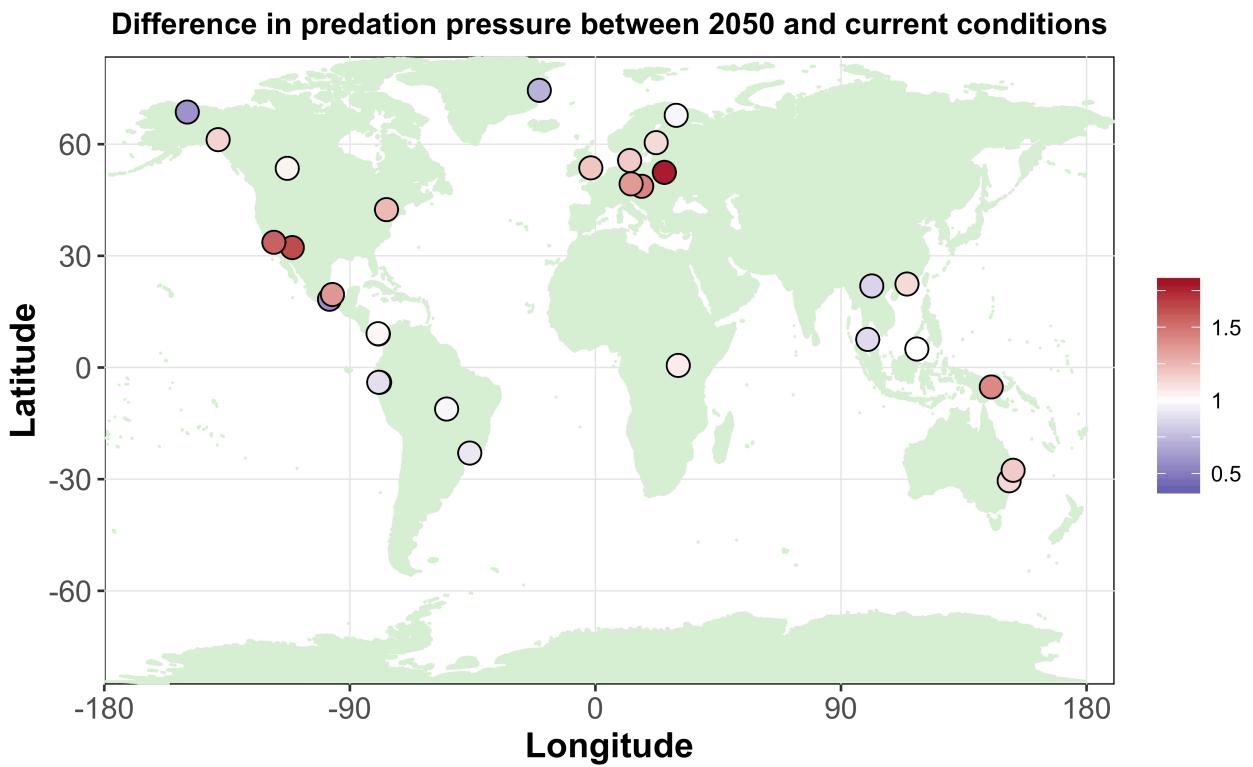


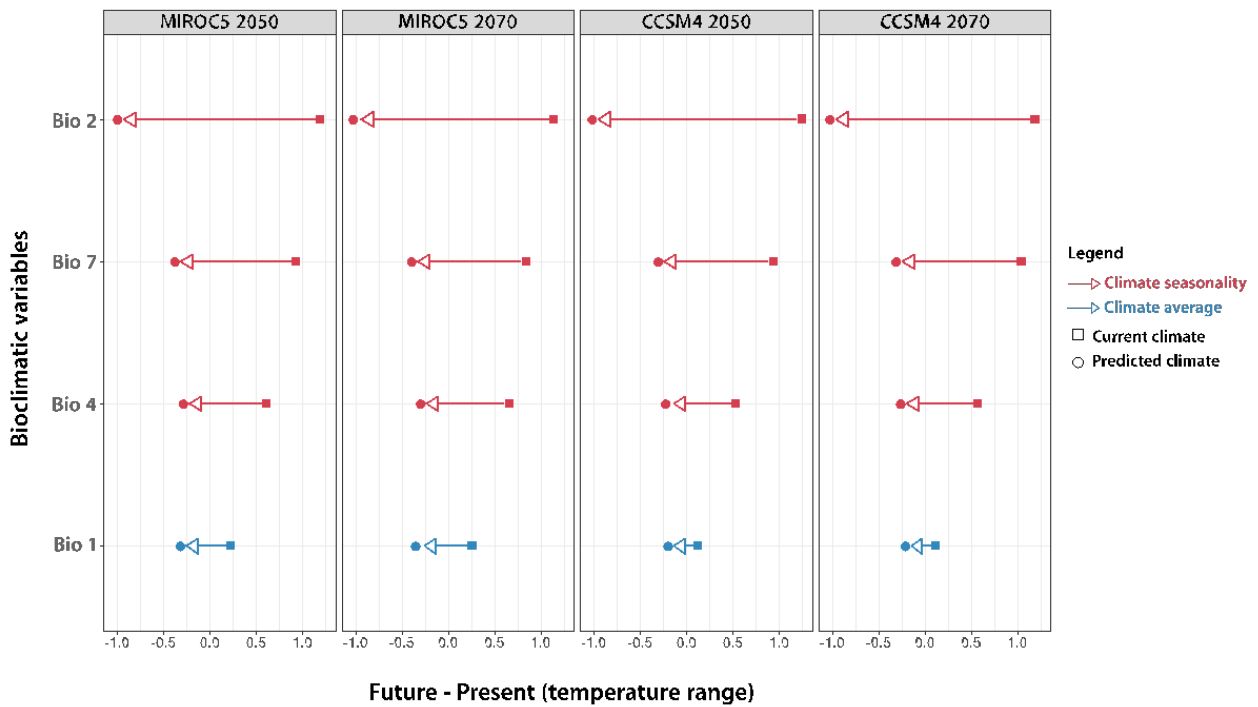
**Fig. S7 | Changes in predation pressure predicted by a GLMM approach.** The map shows odds ratios of future (2050) versus current (2015) predation rates. Hence, a value of 1 implies no change, whereas a value of 2 shows a doubling of the odds with which an individual caterpillar is attacked per day. Predicted values were obtained from generalized linear mixed models, based on the four major temperature components identified by PCA analyses (Fig. S1), assuming MIROC5 (RCP4.5) global climate model (see Methods for details).



**Fig. S8 | Changes in predation pressure predicted by a GLMM approach.** The map shows odds ratios of future (2070) versus current (2015) predation rates. Hence, a value of 1 implies no change, whereas a value of 2 shows a doubling of the odds with which an individual caterpillar is attacked per day. Predicted values were obtained from generalized linear mixed models, based on the four major temperature components identified by PCA analyses (Fig. S1), assuming CCSM4 (RCP8.5) global climate model (see Methods for details).

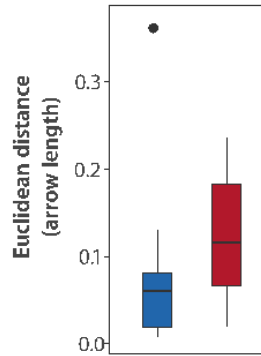
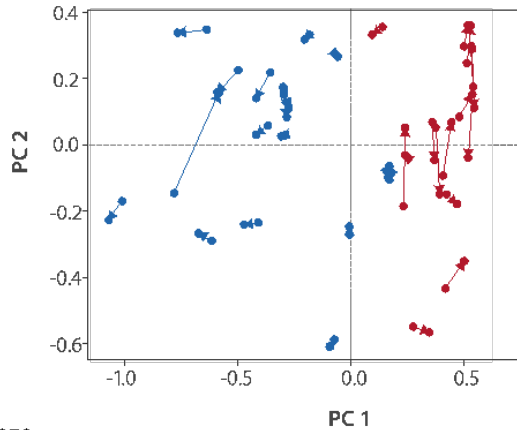


**Fig. S9 | Changes in predation pressure predicted by a GLMM approach.** The map shows odds ratios of future (2050) versus current (2015) predation rates. Hence, a value of 1 implies no change, whereas a value of 2 shows a doubling of the odds with which an individual caterpillar is attacked per day. Predicted values were obtained from generalized linear mixed models, based on the four major temperature components identified by PCA analyses (Fig. S1), assuming CCSM4 (RCP8.5) global climate model (see Methods for details).



**Fig. S10 | Range variations (future – current) in bioclimatic variables.** Range of variation (horizontal arrows) for each bioclimatic descriptor of temperature (bio1, bio2, bio4, bio7, see definitions in Table S1), calculated as the difference between predicted (future) and current climate, after standardization (see Methods). Longer length of the arrows indicates more intense changes in each separate bioclimatic variable, showing that in the future (2050, 2070), temperature seasonality and instability (bio2, bio4, bio7) will increase proportionally more than average magnitudes (bio1). The panels refer to predictions from two independent climatic models (MIROC5 and CCSM4).

CCSM4 2070



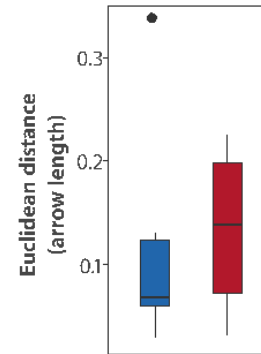
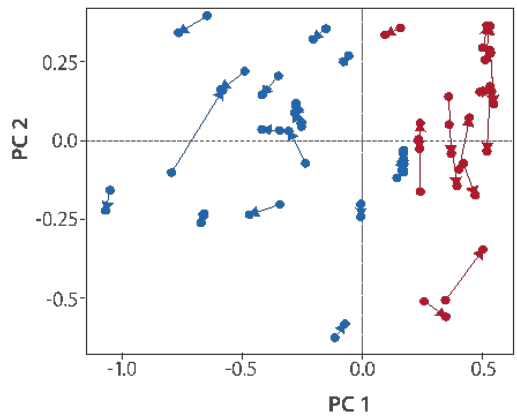
Legend

● Temperate region

● Tropical region

↗ Procrustean difference between current (arrow start) and projected (arrow end) climate

MIROC5 2070



**Fig. S11 | Current and projected climate variability for each of 31 experimental sites (arrows) where arthropod predation intensity was measured.** Procrustean difference between current and projected climate for temperate (blue) and tropical regions (red) using the same temperature components standardized as in Fig. S10. Arrow length is calculated using Euclidean distance and indicates the intensity of climate change. Each arrow starts at current climate, and ends at projected climate for 2070, using two different climatic models (CCSM4 and MIROC5). The right-hand panels (boxplots) demonstrate that changes are predicted to be larger in tropical than temperate regions (t-test; CCSM4:  $t=4.4$ ,  $P<0.001$ ; MIROC5:  $t=3.9$ ,  $P<0.001$ ).