

Code	Description	Covariates
C	Constant effects, no historical covariates	Geographic range, global temperature
V	Varying effects, no historical covariates	Geographic range, global temperature
CP	Constant effects, historical covariates	Geographic range, change in geographic range, global temp
VP	Varying effects, historical covariates	Geographic range, change in geographic range, global temp

Code	Description	Covariates	Formula
C	Constant effects, no historical cov.	Geographic range, temperature	event ~ range + temp + (1   age/phylum)
V	Varying effects, no historical cov.	Geographic range, temperature	event ~ range + temp + (1 + range + temp   phylum) + (1   age/phylum)
CP	Constant effects, historical cov.	Geographic range, change in geographic range, temperature, previous temperature	event ~ range + range.diff + temp + temp.lag + (1   age/phylum)
VP	Varying effects, historical cov.	Geographic range, change in geographic range, temperature, previous temperature	event ~ range + range.diff + temp + temp.lag + (1 + range + range.diff + temp + temp.lag   phylum) + (1   age/phylum)