

## Supplement 1

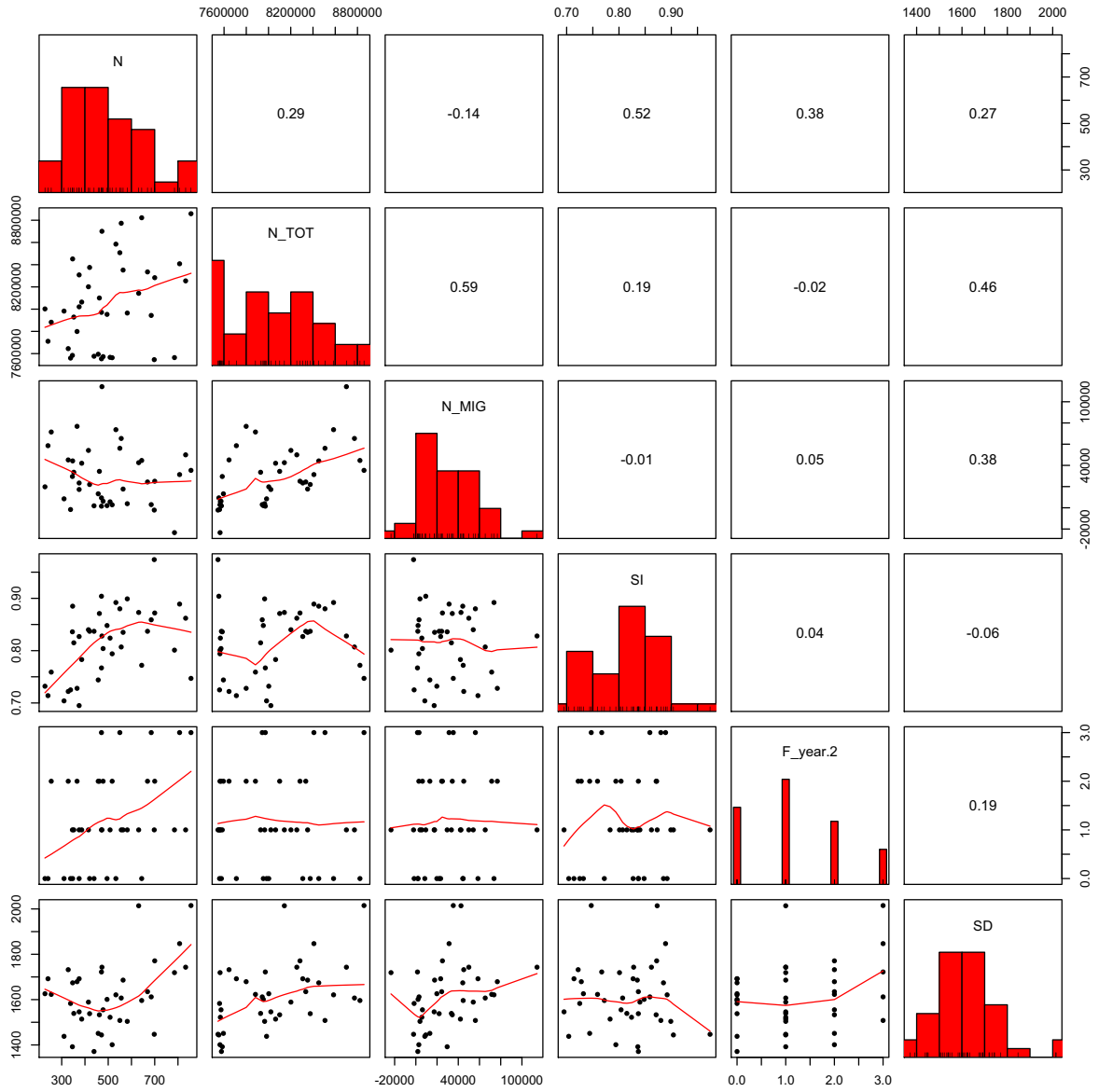


Figure S1: Frequency distributions (red bars) of the Austrian TBE incidence without vaccination  $N$  and the predictors used in the generalized linear models (GLMs): total human population  $N_{TOT}$ , net migration  $N_{MIG}$ , transformed Scandinavian index  $SI$ , beech fructification index 2 years prior  $F_{year-2}$  and, annual sunshine duration in hours  $SD$ . The following rank-order correlations with  $N$  have been determined:  $R=0.29$  ( $N_{TOT}$ ),  $R=-0.14$  ( $N_{MIG}$ ),  $R=0.52$  ( $SI$ ),  $R=0.38$  ( $F_{year-2}$ ), and  $R=0.27$  ( $SD$ ). Maximum collinearity of  $R=0.59$  ( $N_{TOT}$  vs.  $N_{MIG}$ ).

## Supplement 2

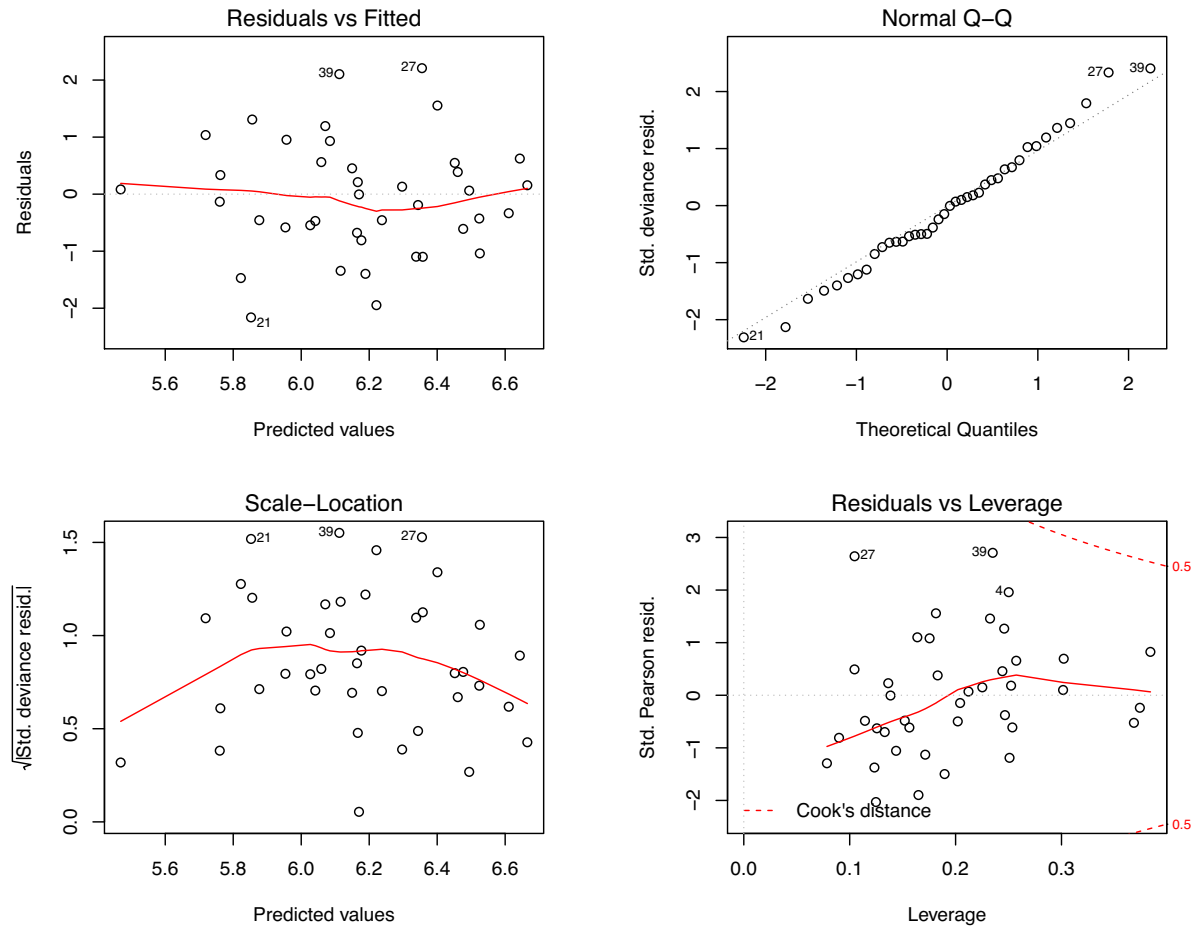


Figure S2: Statistical features of GLM4.

## Supplement 3

Table S1: Akaike information criterion (AIC) and explained variance ( $R_{adj}^2$ ) values for stepwise developed models GLM1–GLM4.

	AIC	$R_{adj}^2$
GLM1	519	0.10
GLM2	501	0.48
GLM3	490	0.66
GLM4	487	0.70