

**Table S3. Phylogenetic generalized least squares model selection.**

The model predicting *P. destructans* infection based on ecological and behavioural characteristics of bats was selected with the step-down procedure, where the full model is given on the first line and removed variables are listed subsequently.

<b>Model</b>	<b>InL</b>	<b>AIC</b>	<b>AICc</b>
Pd ~ CAVE + REGION + CLUSTER + TEMPERATURE + SHELTERhidden + SHELTERexposed + CSIZEsmall + CSIZEmedium + RANGEeverylarge + RANGElarge + RANGEmoderate + FOODcoleoptera + FOODdiptera + FOODgeneralist + FOODlepidoptera + HABITATclosed + HABITATopen + BODYsmall + BODYmedium ~.-BODYmedium ~.-BODYsmall ~.-FOODlepidoptera ~.-FOODgeneralist ~.-HABITATopen ~.-FOODdiptera ~.-FOODcoleoptera ~.-CLUSTER ~.-REGION ~.-RANGElarge ~.-CAVE ~.-RANGEeverylarge ~.-TEMPERATURE ~.-RANGEmoderate	-21.1948 -21.2146 -21.2856 -21.4081 -21.9462 -22.1580 -22.1585 -25.2637 -25.3162 -25.5279 -25.6031 -26.0697 -26.5378 -29.8421 -31.1150	82.39 80.43 78.57 76.82 75.89 74.32 72.32 76.53 74.63 73.06 71.21 70.14 69.08 73.68 74.23	114.70 108.58 103.00 97.92 94.03 89.80 85.44 87.56 83.81 80.60 77.32 75.00 72.87 76.56 76.33