

## Age- and size-dependent resistance to chytridiomycosis in the invasive cane toad *Rhinella marina*

Laura A. Brannelly\*, Gerardo Martin, John Llewelyn, Lee F. Skerratt, Lee Berger

\*Corresponding author: laura.brannelly@pitt.edu

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We generated individual variable response curves and its contributions in the Maxent models for both species. Response curves represent the expected change in probability of presence (relative to the assumed prevalence of 0.5 per pixel; Phillips et al 2006) in response to increasing values of that variable while the rest are kept constant.

Table S1. Weather variables included in the model

Variables	Definition of each variable
bio1	Mean annual temperature
bio2	Mean diurnal range (mean of max temp - min temp)
bio3	Isothermality (bio2/bio7) (* 100)
bio4	Temperature seasonality (standard deviation *100)
bio5	Max temperature of warmest month
bio6	Min temperature of coldest month
bio7	Temperature annual range (bio5-bio6)
bio8	Mean temperature of the wettest quarter
bio9	Mean temperature of driest quarter
bio10	Mean temperature of warmest quarter
bio11	Mean temperature of coldest quarter
bio12	Total (annual) precipitation
bio13	Precipitation of wettest month
bio14	Precipitation of driest month
bio15	Precipitation seasonality (coefficient of variation)
bio16	Precipitation of wettest quarter
bio17	Precipitation of driest quarter
bio18	Precipitation of warmest quarter

## Cane toad model

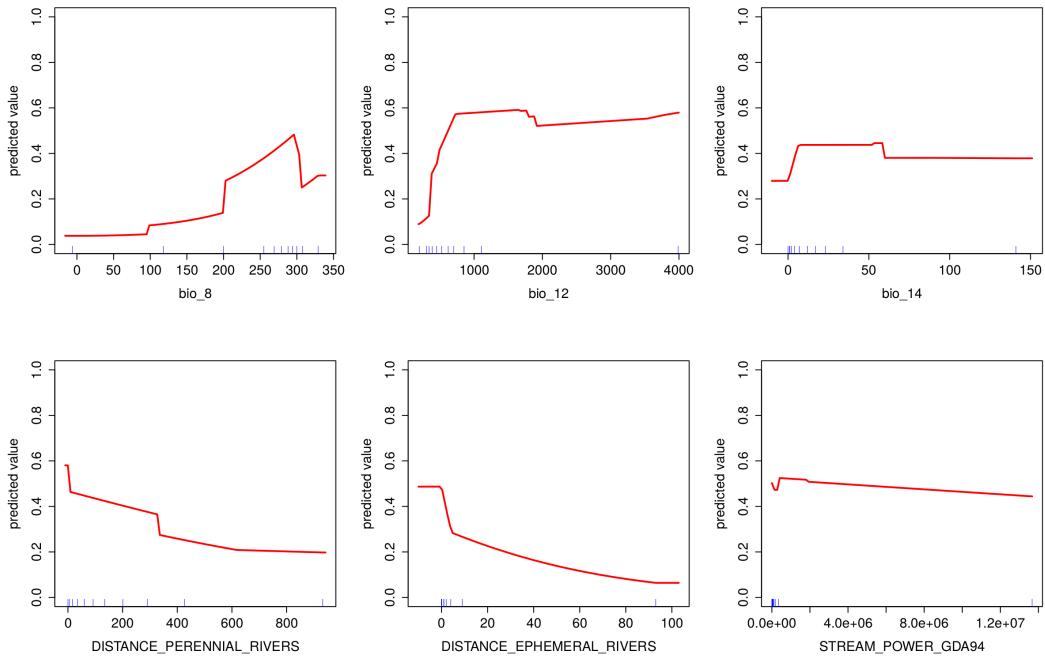


Figure S1. Partial response to each variable while the rest are kept constant at its average value for the cane toad model.

### Variable contribution Rm model

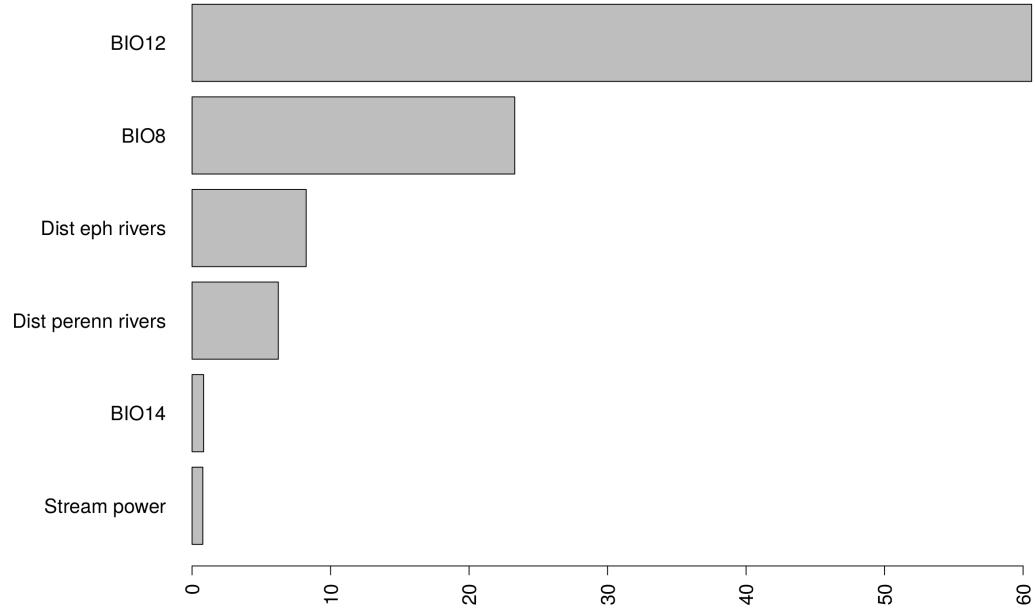


Figure S2. Variable importance for cane toad distribution. BIO 12, total annual precipitation, and BIO8, mean temperature of the wettest quarter, both have positive effects and contribute together to explain more than 80% of the variability. This means that cane toads are favoured by warm and wet conditions.

### *Batrachochytrium dendrobatidis* model

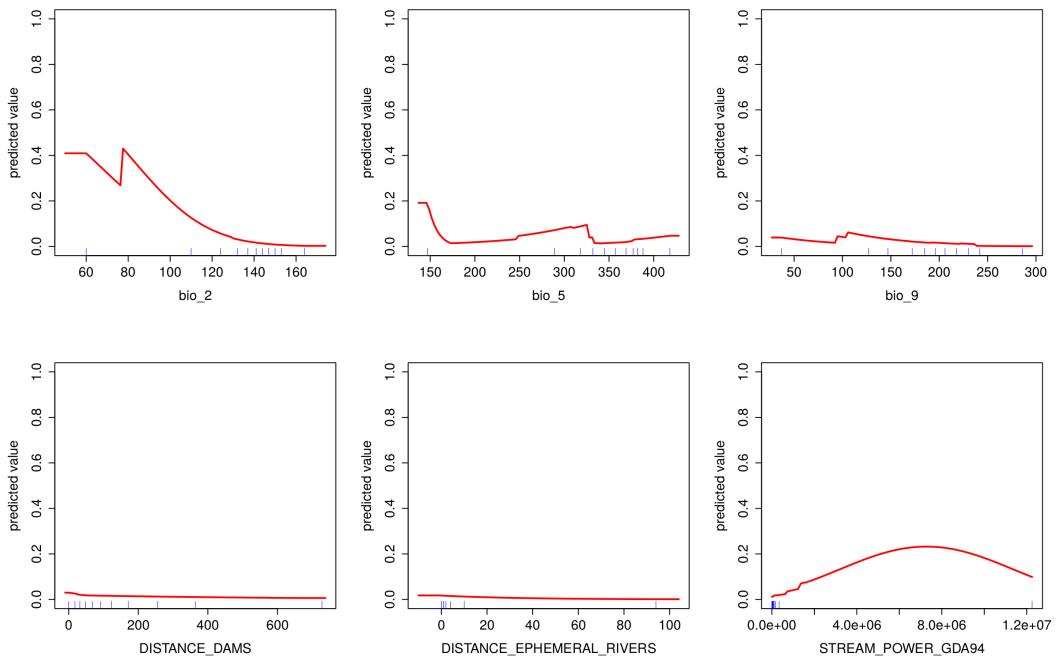


Figure S3. Partial response to each variable while the rest are kept constant at its average value for the *Bd* model.

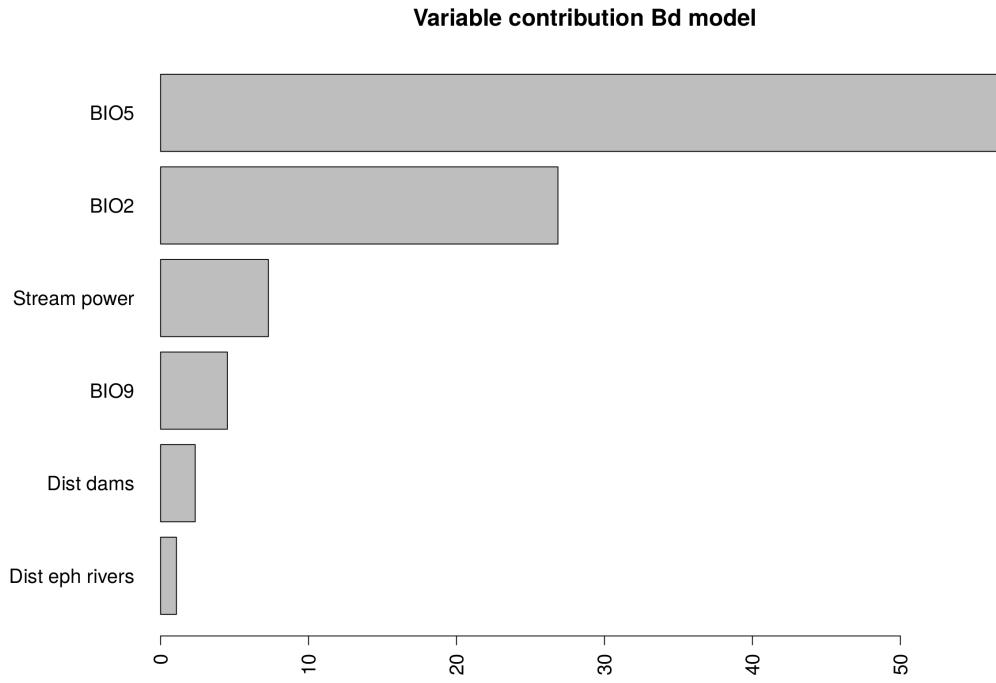


Figure S4. Variable importance for *Bd* distribution. BIO5 , maximum temperature of the warmest month, which has an overall negative effect explains nearly 60% of the variability for *Bd* presence. The mean diurnal temperature range, BIO2, contributes nearly 25% and has a negative effect. This means that areas with a narrower temperature range and high temperatures are least suitable.

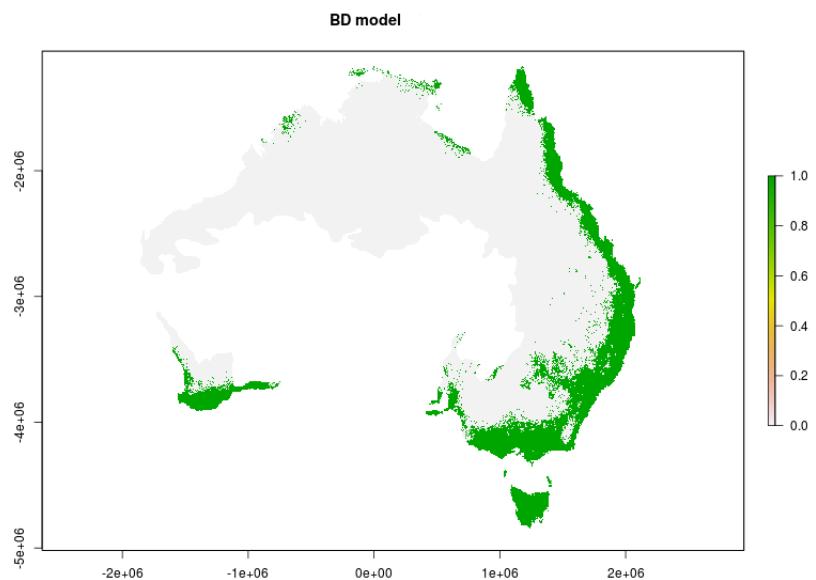


Figure S5. Predicted distribution of suitable habitat for *Bd*.

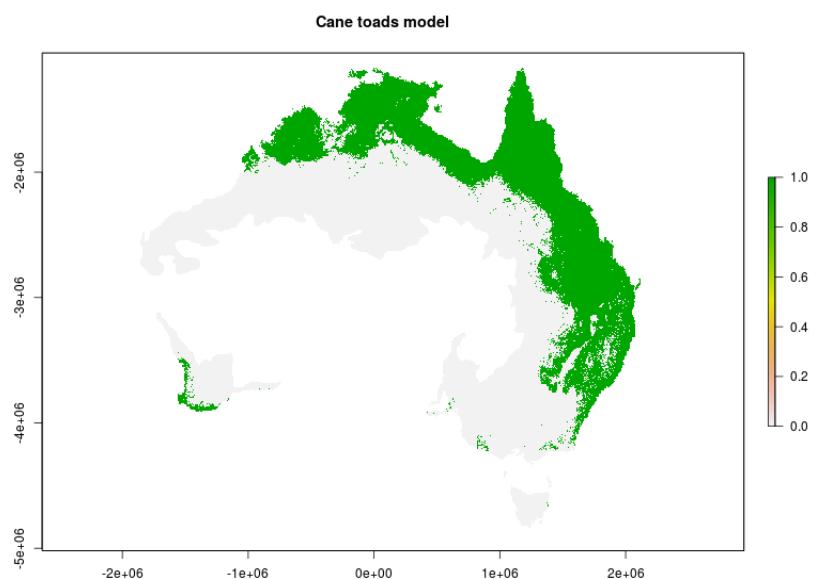


Figure S6. Predicted distribution of suitable habitat for cane toads.

#### LITERATURE CITED

Phillips SB, Aneja VP, Kang D, Arya SP (2006) Modelling and analysis of the atmospheric nitrogen deposition in North Carolina. Int J Glob Environ Issues 6:231–252