Supporting Information

Tingley et al. 10.1073/pnas.1405766111

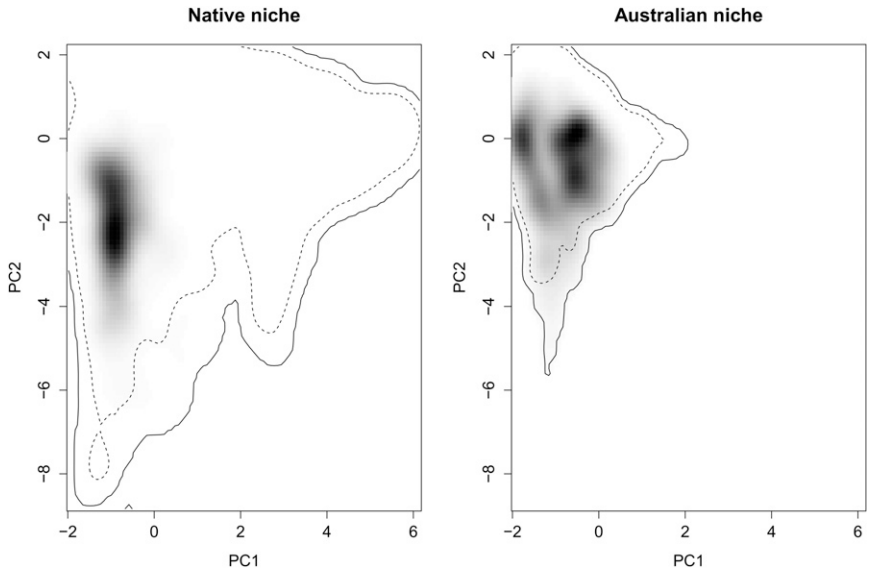

Fig. S1. Native and Australian realized niches of *Rhinella marina* in climatic space (as represented by the first two axes of a principal components analysis shown in Fig. 1). Shaded areas represent smoothed densities of occurrences in the gridded climatic space (obtained using a kernel density estimator). The solid and dashed lines represent 100% and 75% of the background available in the New World and Australia.

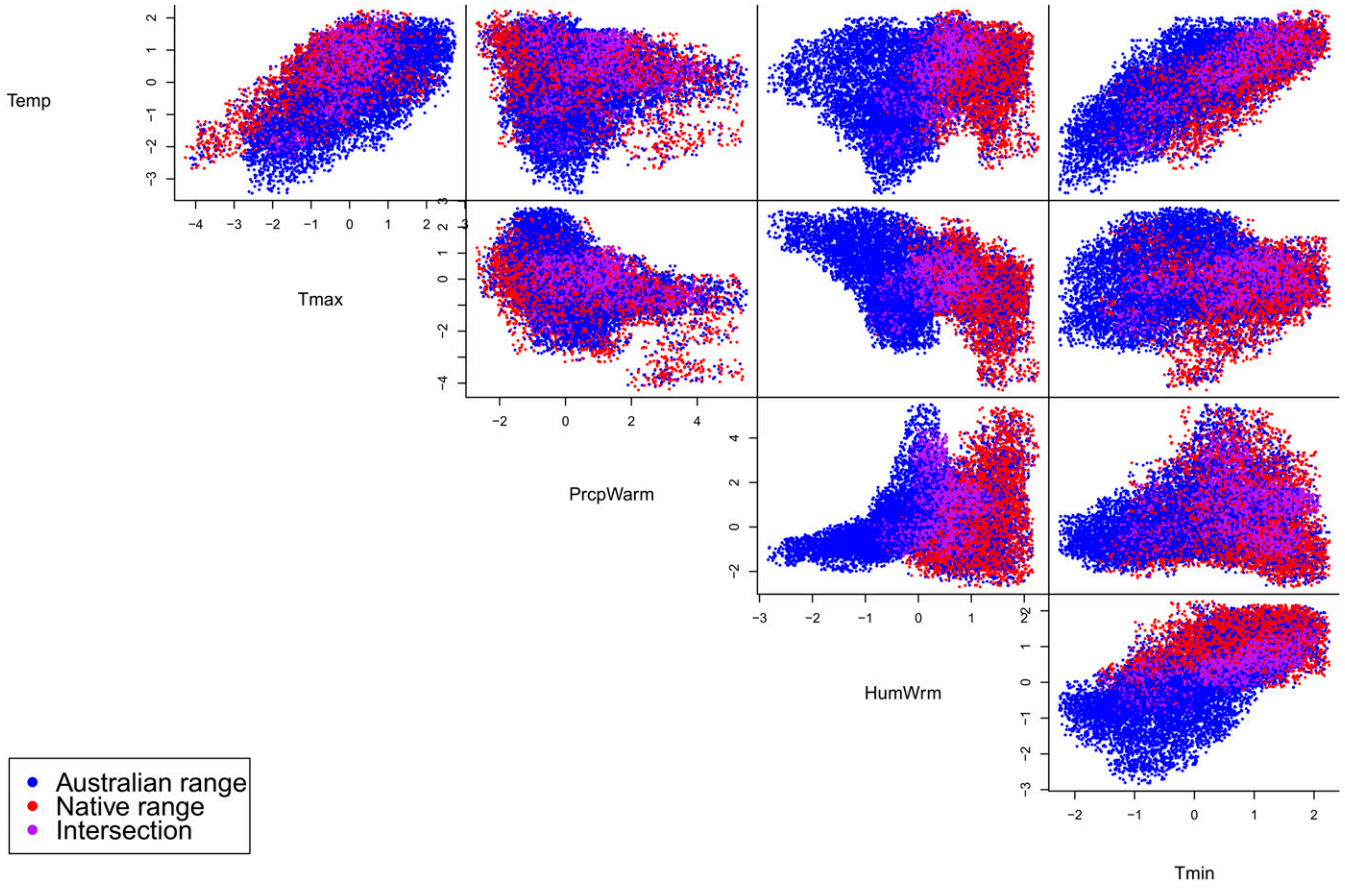

Fig. S2. Hypervolume plots showing the native (red) and Australian (blue) realized niches of *R. marina* in climatic space. The points for each species are not original observations but are randomly drawn from the inferred hypervolumes. Tmin, minimum temperature of the coldest month; Tmax, maximum temperature of the warmest month; Temp, mean annual temperature; HumWarm, mean humidity of the warmest quarter; PrcpWarm, precipitation of the warmest quarter.

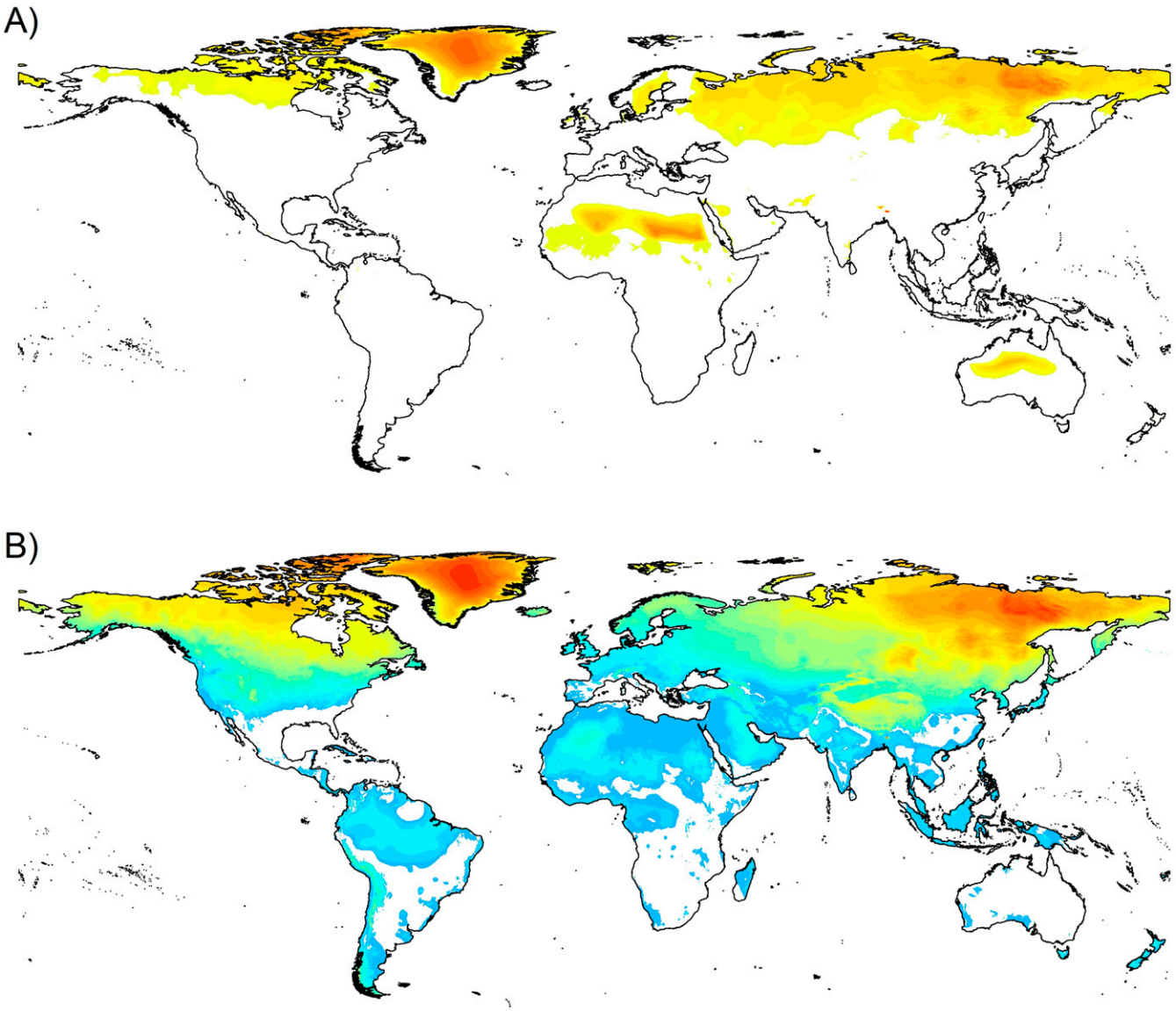

Fig. S3. Multivariate environmental similarity surfaces illustrating the novelty of global climates with reference to records that were used to calibrate native (*A*) and Australian (*B*) niche models for *R. marina*. Negative multivariate environmental similarity surface values (decreasing from blue to yellow to red) represent areas in which at least one climate variable has a value that is outside of the reference range, whereas positive values (white) indicate climates that are analogous to those within the reference set.

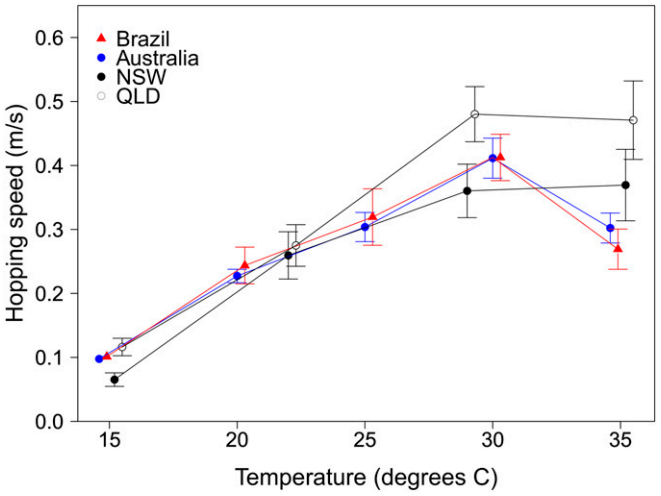

Fig. S4. Relationship between temperature and hopping speed of *R. marina* (mean ± 95% confidence interval). Data collected on four Australian populations (blue circles) were used to parameterize the mechanistic model. Also shown are data from four Brazilian populations (red triangles) and two additional populations from New South Wales (black circles) and Queensland (open circles), Australia. The effect of temperature on hopping speed differs between these two populations at 30 °C and 35 °C, and thus these populations are shown separately.

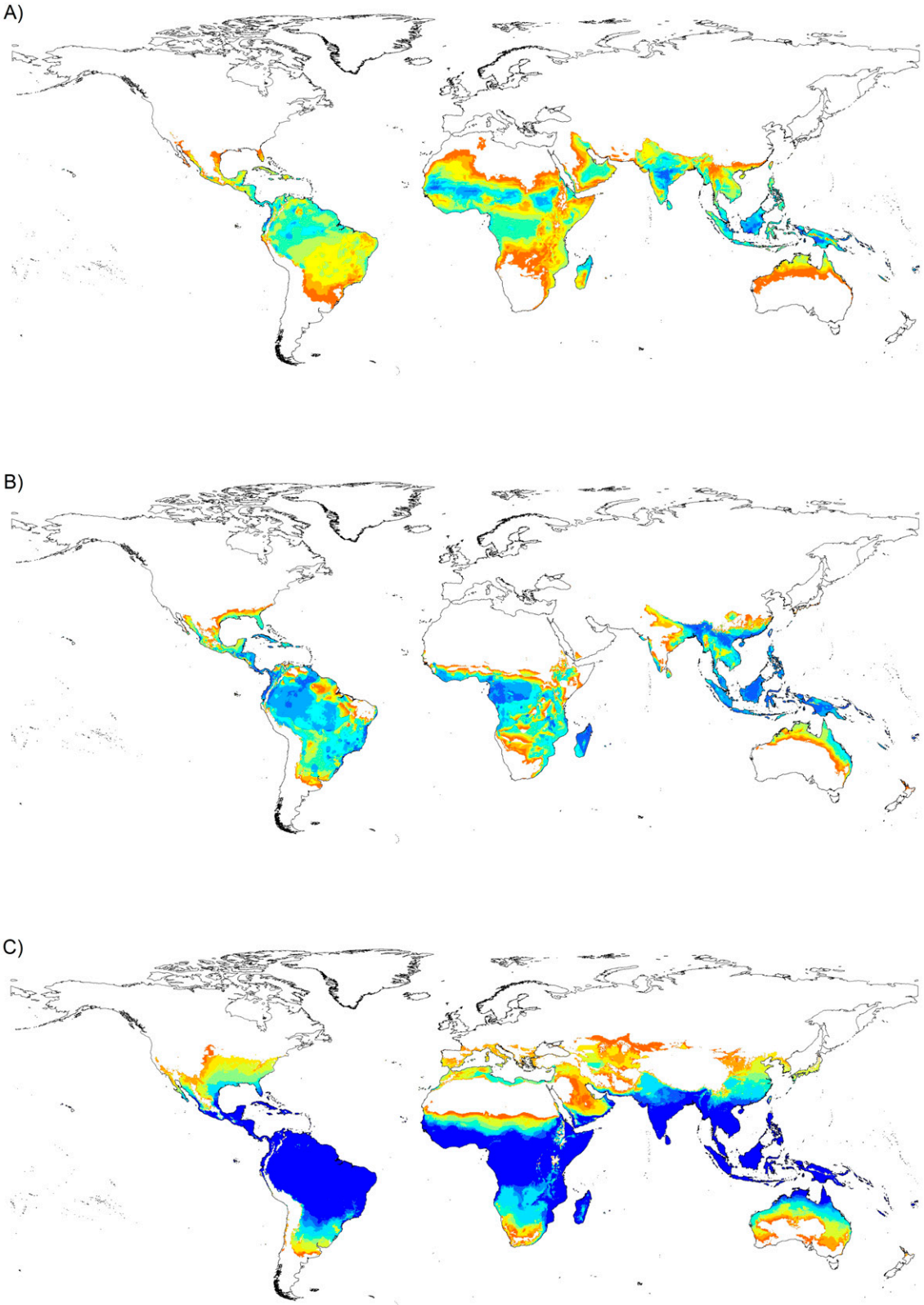

Fig. S5. Global predictions of climatic suitability for *R. marina* according to correlative (*A* and *B*) and mechanistic (*C*) models. Correlative models were calibrated using data from either the species' native (*A*) or Australian (*B*) range. The mechanistic projection (*C*) depicts the potential number of breeding months per year. Correlative predictions are depicted in 10% suitability classes ranging from ranging from white to orange to yellow to green to blue. Fundamental niche predictions are depicted in 10 equal interval classes, with the highest class depicting 9–12 breeding months per year and the white area representing no breeding months per year.