

Figure 1: Shape changes associated with the First Principal Component (above), allometry (middle), and precipitation (below). Spheres are the landmarks used in this study. Warmer colours represent higher landmark variation between minimum and maximum estimated configurations based on the three linear predictors. Black vectors show direction and magnitude of shape variation. Red arrows indicate anatomical zones of major landmark variation associated with allometry. Blue arrow indicates anatomical zone of major landmark variation associated with precipitation.

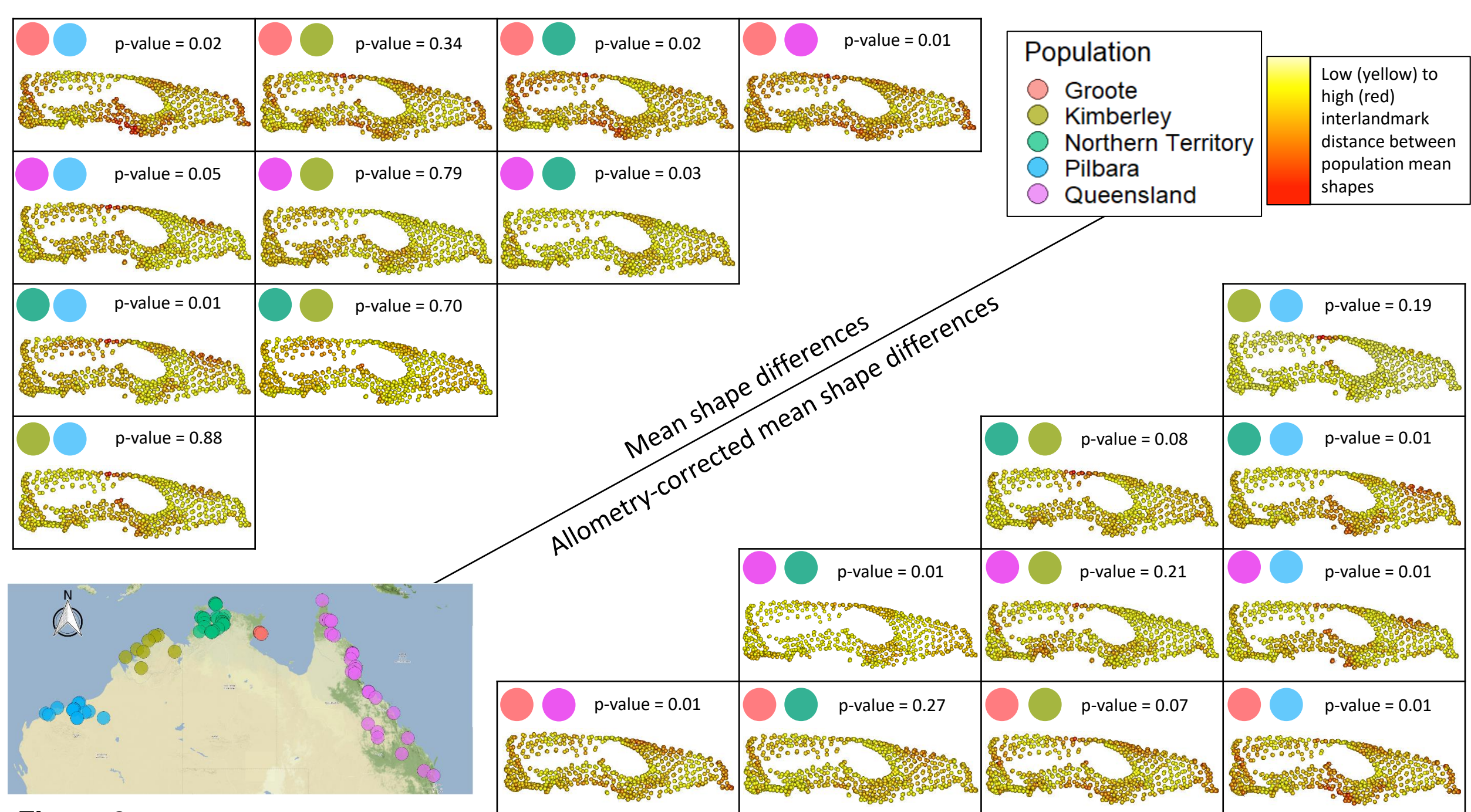


Figure 2

Figure 2: Pairwise comparisons between means of each population and visualization of interlandmark variation between populations mean shapes. Warmer colours represent higher landmark variation. Top left, comparisons between mean shapes of each population; bottom right, comparisons between size-corrected mean shapes of each population. Map on bottom left shows all specimen locations used in this study. P-values for pairwise comparisons are corrected with the Bonferroni method. Note that the colour range in this figure is calculated within the minimum and maximum inter-landmark differences between population comparisons and is therefore not comparable to the colour range of Figure 1. Using the same colour range would mask the population differences depicted here. Also note that black vectors of direction and magnitude of variation (these are comparable to Figure 1) are barely visible because the shape differences are very small.

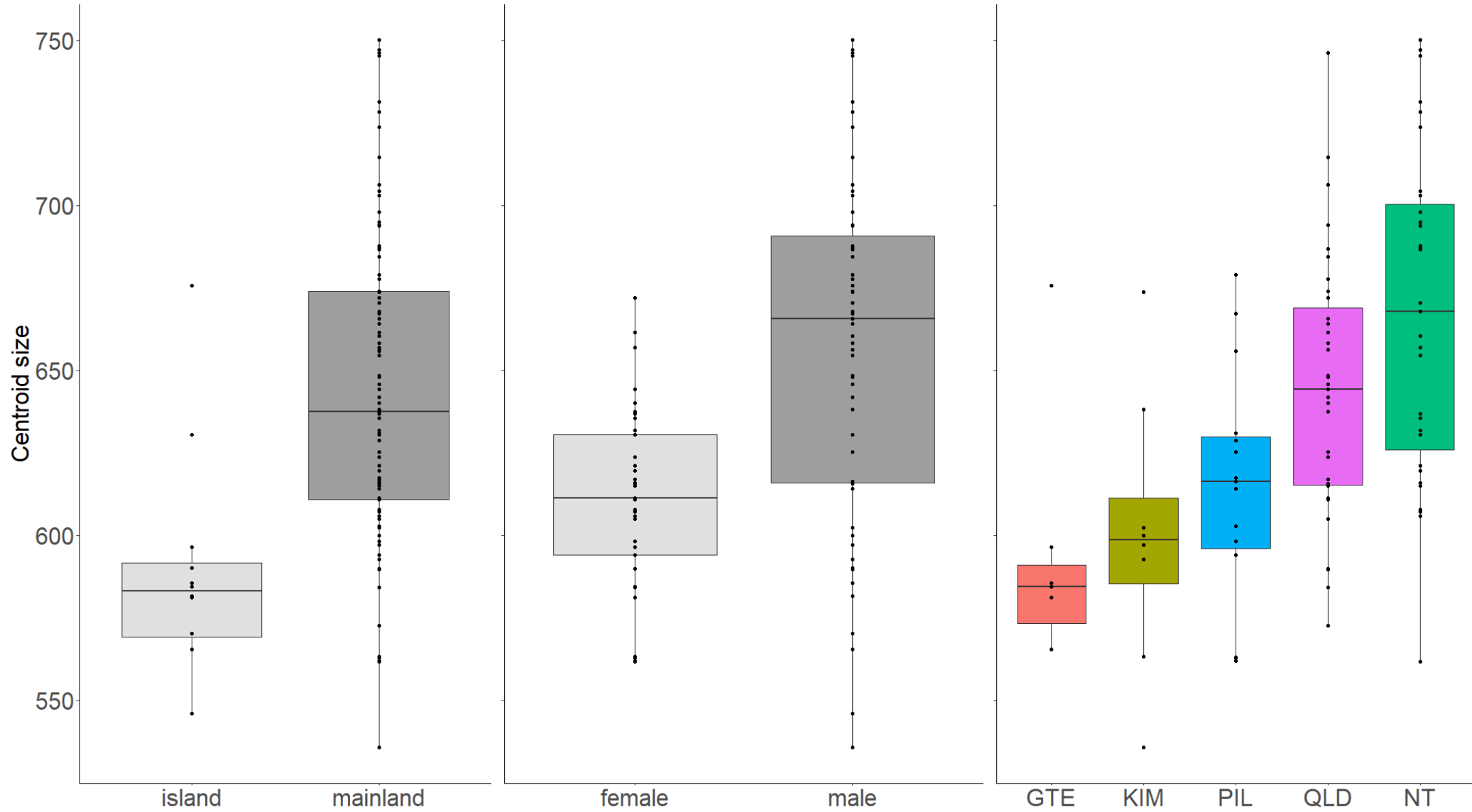
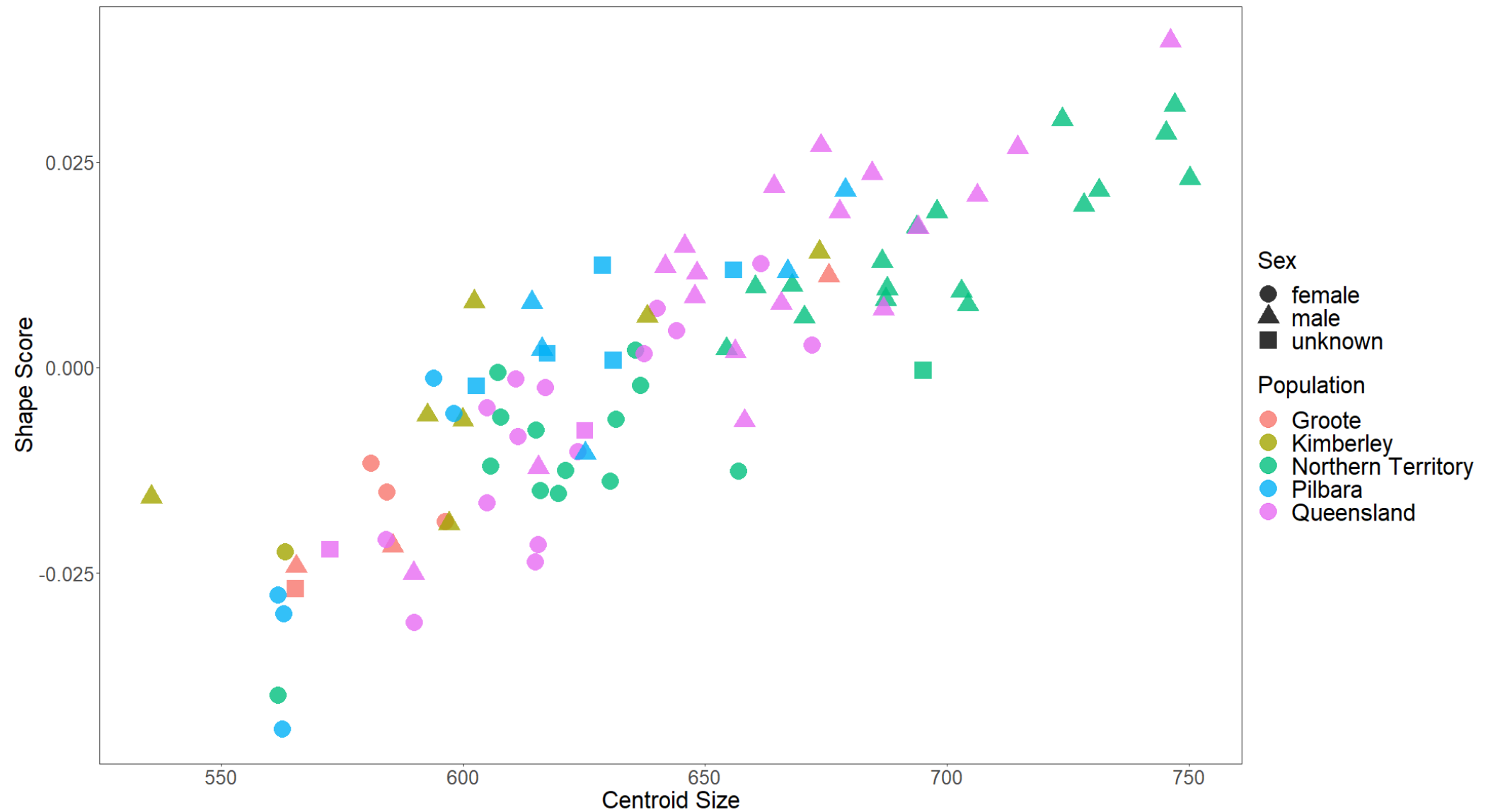


Figure 3: Box plots and dot plots of Centroid Size according to island/mainland, sex and population. Population abbreviations: GTE = Groote Eylandt, KIM = Kimberley, PIL = Pilbara, QLD = Queensland, NT = Northern Territory.



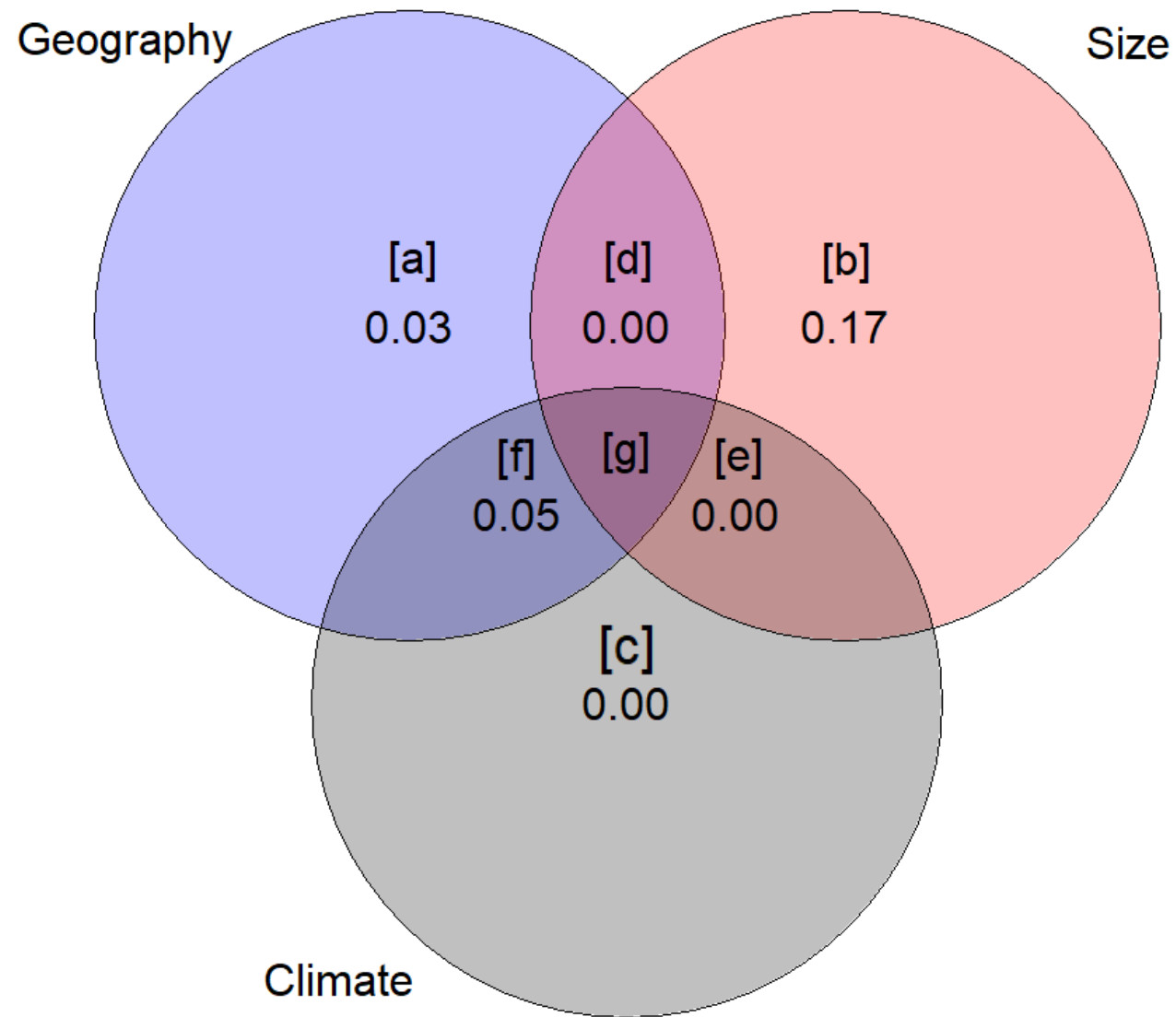


Figure 5

Figure 5: Schematic representation of the variation partitioning analysis (VARPART), which included effect of geography, size and combined climatic variables (precipitation and temperature) on cranial shape of mainland specimens. The values shown in the diagram represent the individual fractions for each set. The outer numbers are the adjusted R-squared values of pure geography [a], pure size [b] and pure climate [c] and the inner values are the adjusted R-squared values of the interaction of the corresponding explanatory variables. The individual fraction for the interaction of all three variables [g] is negligible and not shown. The amount of unexplained shape by this model is depicted by the residuals (76%). Circle sizes are schematic and do not represent the amount of shape explained by the model.