



**Figure S29:** The proportional overlap of outliers above the 95% quantile, averaged across 100 downsampled datasets consisting of 95% Neutral and 5%  $\text{Pheno}_{\text{Null}}$  data for each of the 16 demographic treatments after 100 generations. Axis orderings were determined through hierarchical clustering. Heatmaps are shown for single measures of  $F_{ST}$ ,  $D_{XY}$  and  $\Delta\pi$  in the first column, and combined measures in the second column. Heatmaps are coloured according to a common scale of 0 to 1. Treatments are labelled with founding bottleneck (Bot), DP population size (Pop2), and migration (Mig) values.