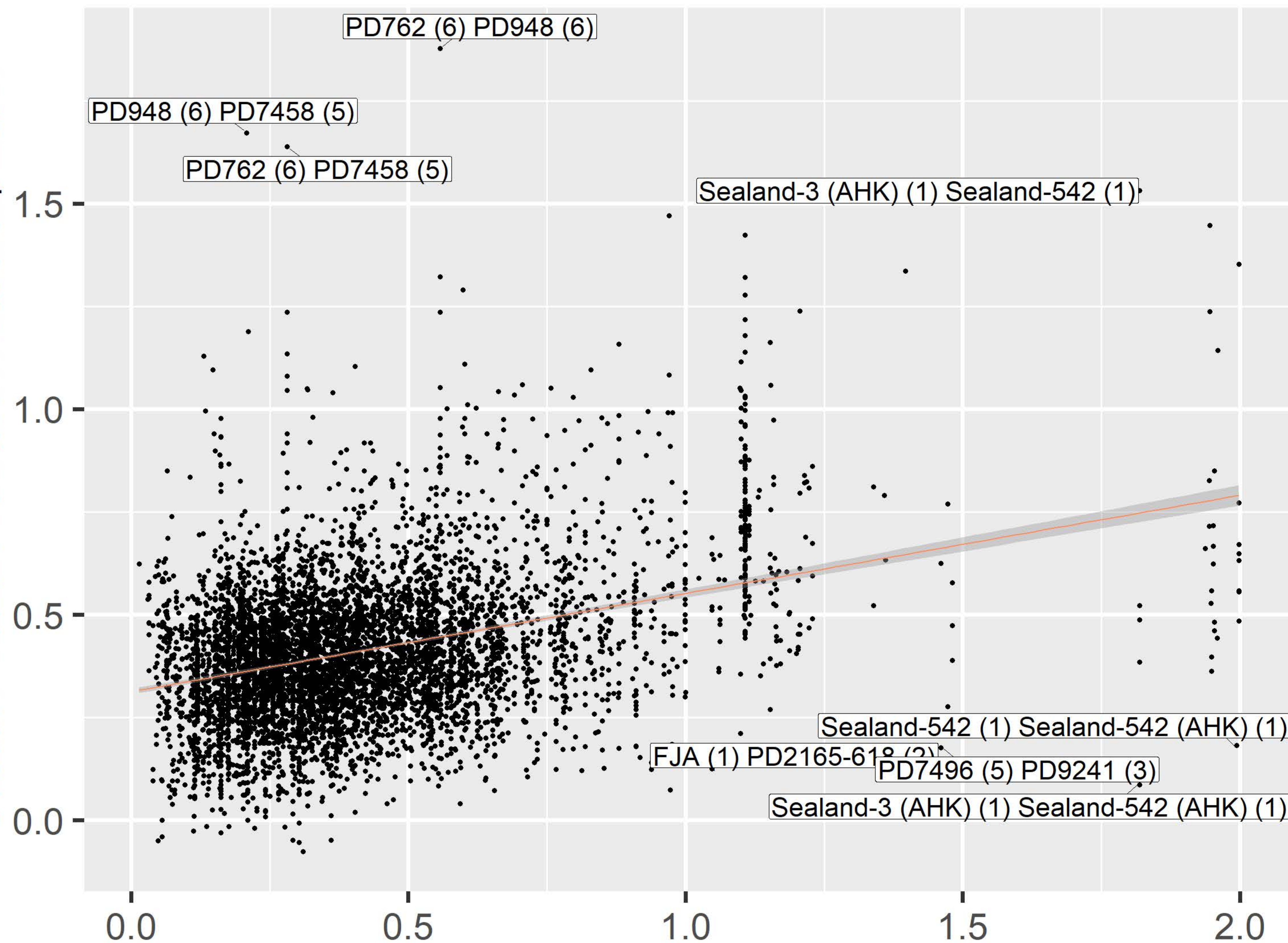
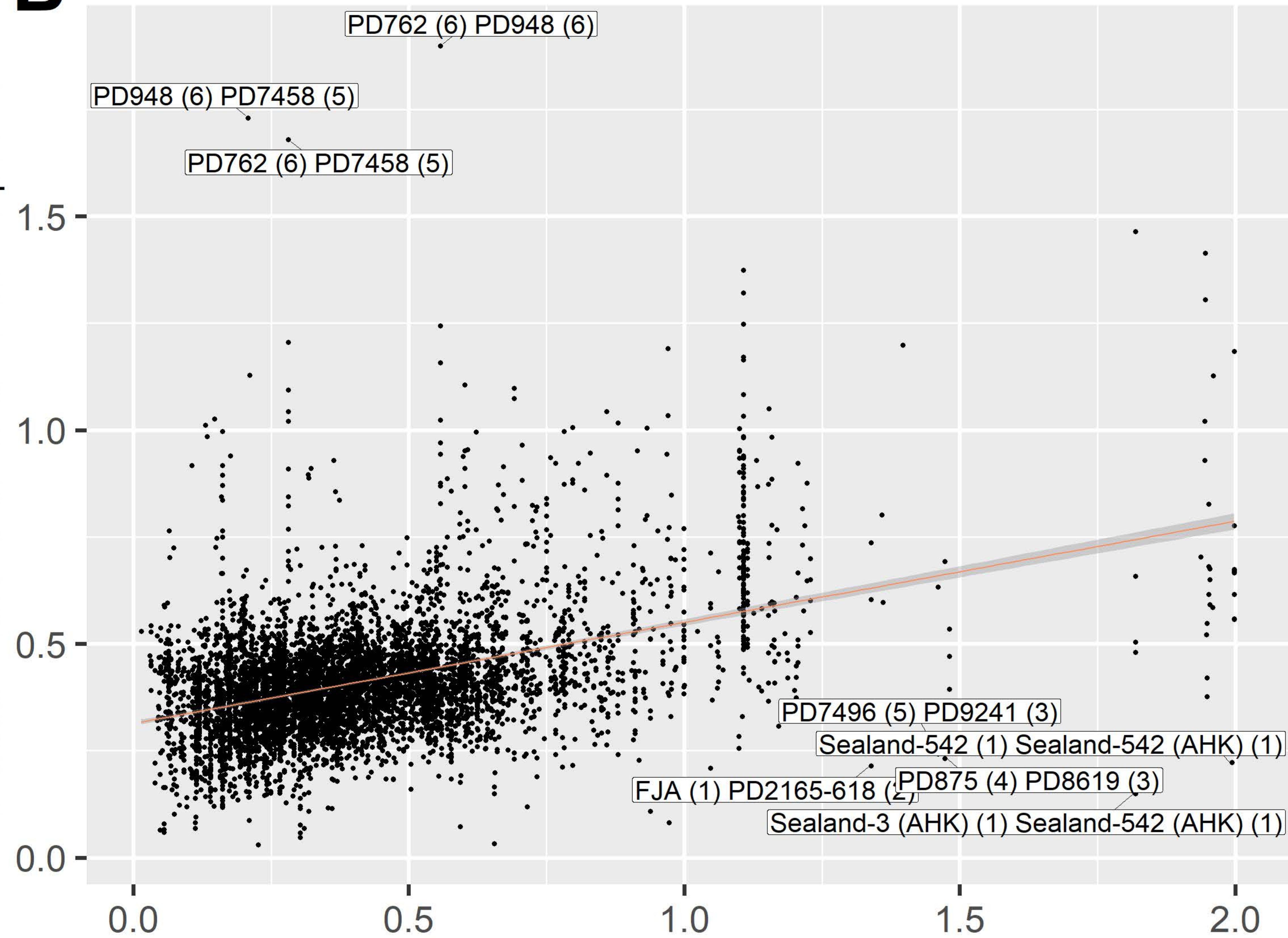


**A**

Dataset1 - Additive vanRaden Relationship Matrix

Coancestry,  $r_{xy}$ , Calculated from Pedigrees (IBD, Numericware N)**B**

Dataset2 - Additive vanRaden Relationship Matrix





**Supplemental Figure 3. Goodness of fit for pairwise genetic relatedness against pedigrees, before and after correcting for marker redundancy.** Observed genomic relationship matrix for Dataset One (**A**) and Dataset Two (**B**) plotted against coancestry calculated from extended pedigrees in NumericwareN. The line of best fit for Dataset One ( $m = 0.19$ ,  $b = 0.53$ ,  $r^2 = 0.13$ ) and Dataset Two ( $m = 0.07$ ,  $b = 0.82$ ,  $r^2 = 0.20$ ) are given in orange. Outlier genotype pairs have the ID and breeding group number in call-outs.