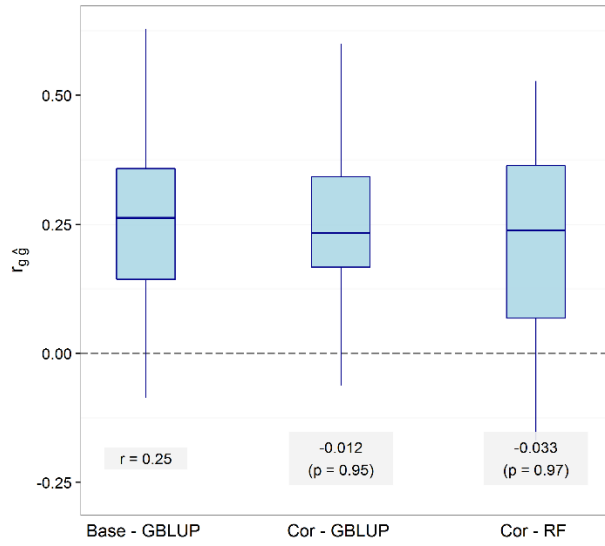
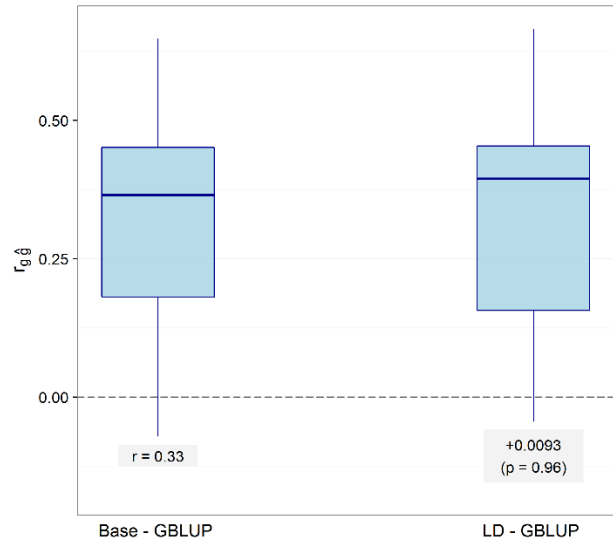


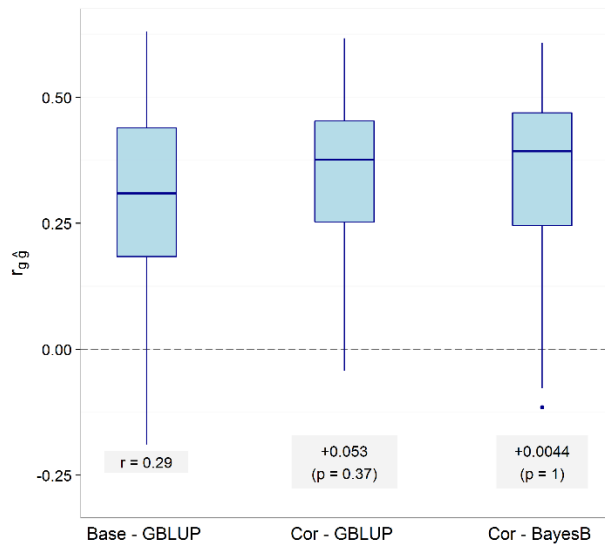
WS4U-C2: PH in WI



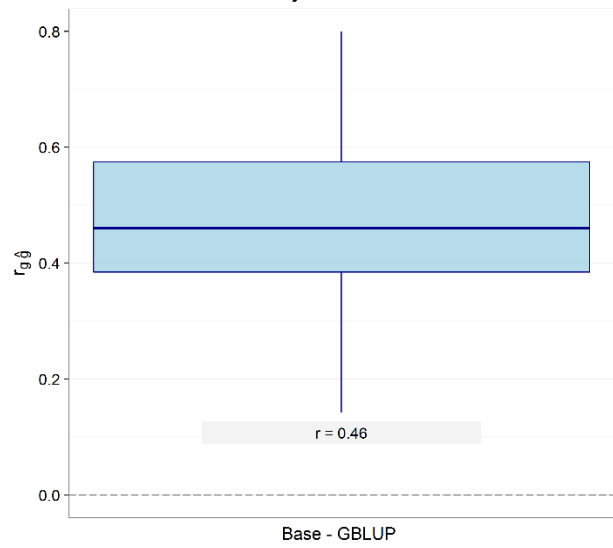
Liberty-C2: PH in WI



WS4U-C2: PH in NE



Liberty-C2: PH in NE



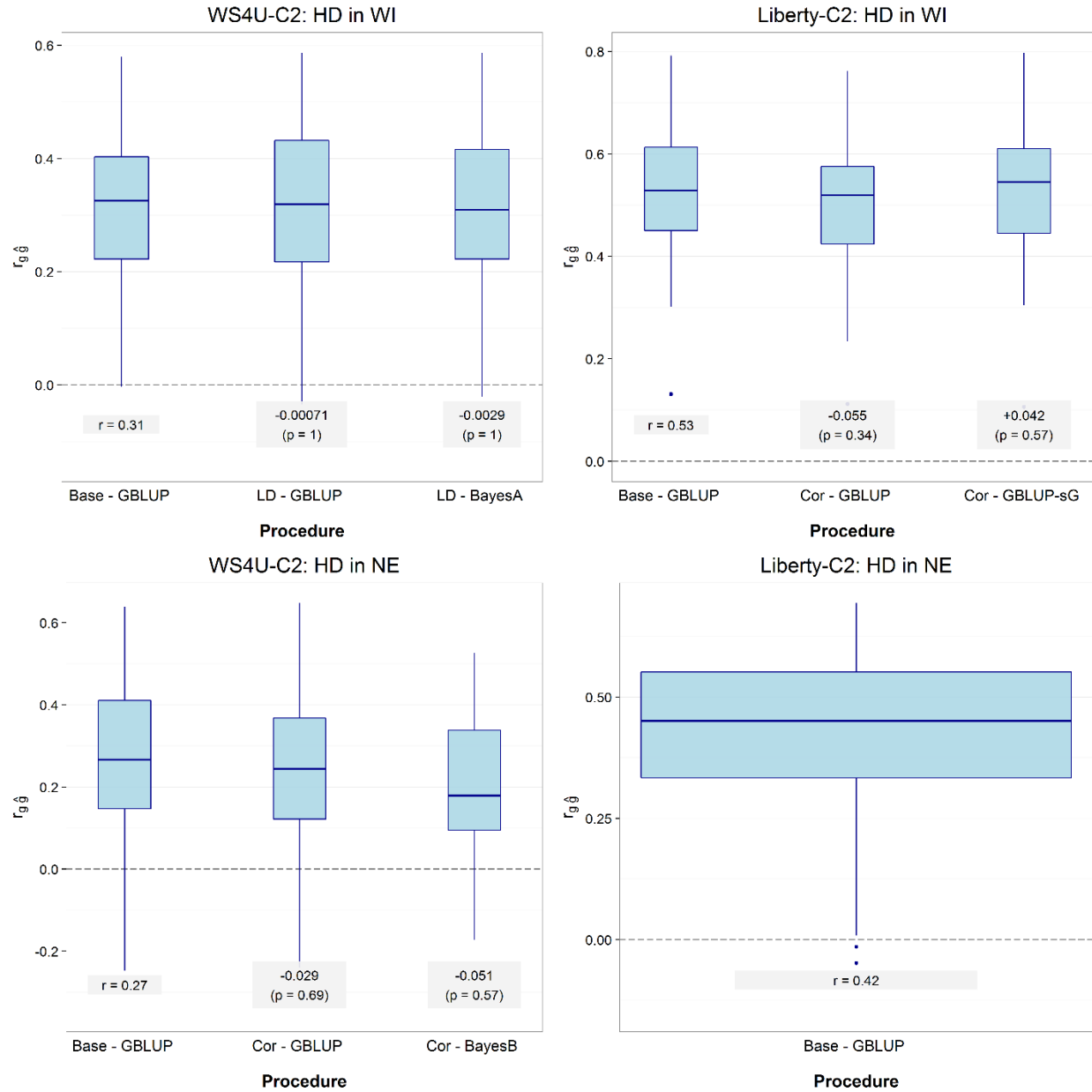


Figure S5 – Validation of selected prediction procedures for PH and HD in WI and NE. Prediction accuracies (r_{gg}) were estimated with a within-population/within-environment learning scheme in five-fold cross-validation, replicated ten times. In each boxplot, up to two comparisons are made: (i) the candidate-transformation procedure (selected marker-data transformation according to non-replicated five-fold cross-validation in a GBLUP model; Table S3) is compared to the standard procedure (Base – GBLUP) – if relevant; and (ii) the candidate procedure (selected prediction procedure according to non-replicated five-fold cross-validation; Table S3) is compared to the candidate-transformation procedure. The significance of differences in prediction accuracies was assessed by two-sided paired Dunnett tests, which accounted for multiple testing of data

transformations, in (i), and of prediction models, in (ii). The t-statistics in Dunnett tests were adjusted to account for correlation among training sets in cross-validation, as described in Bouckaert and Frank (2004).