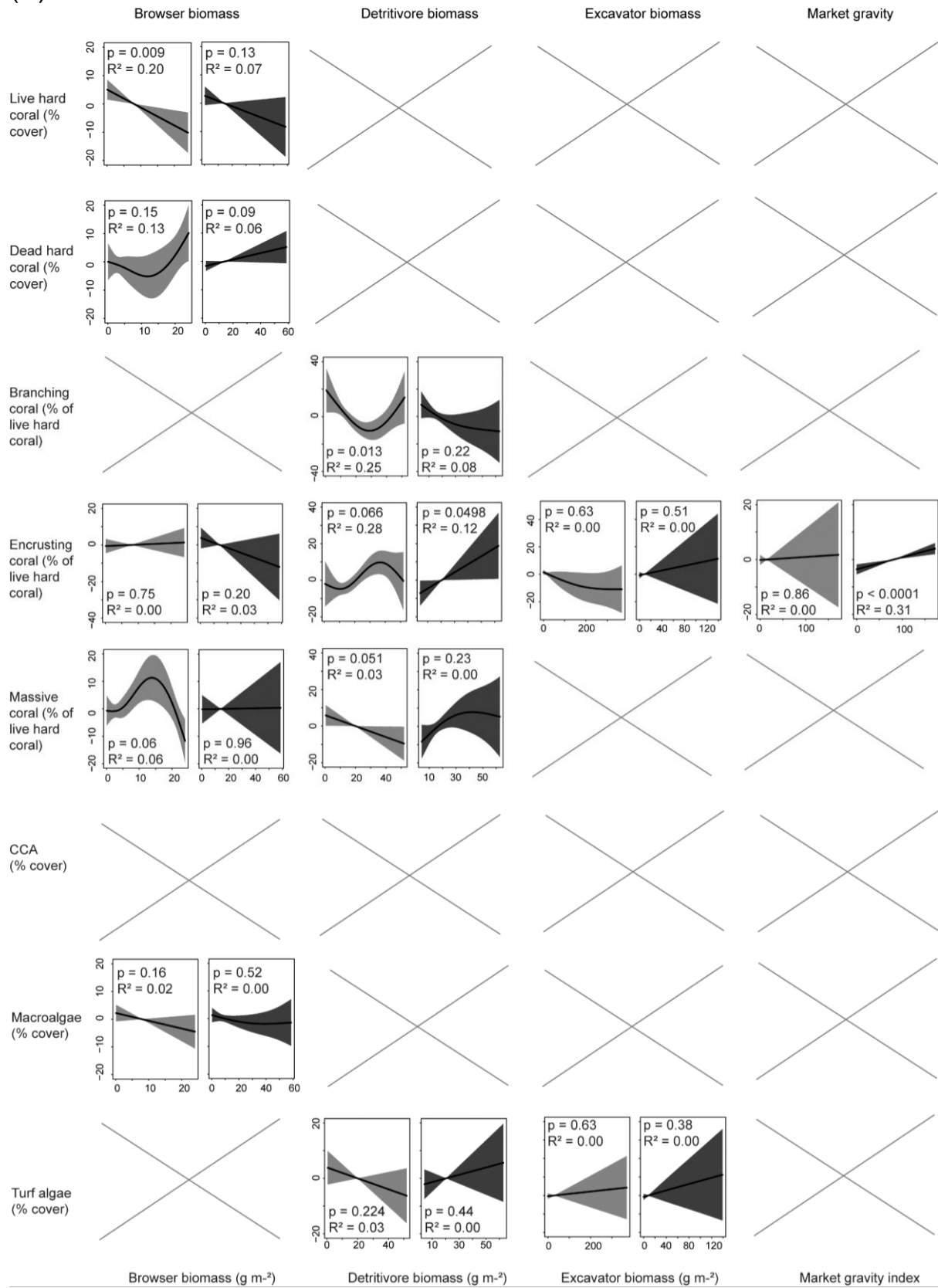
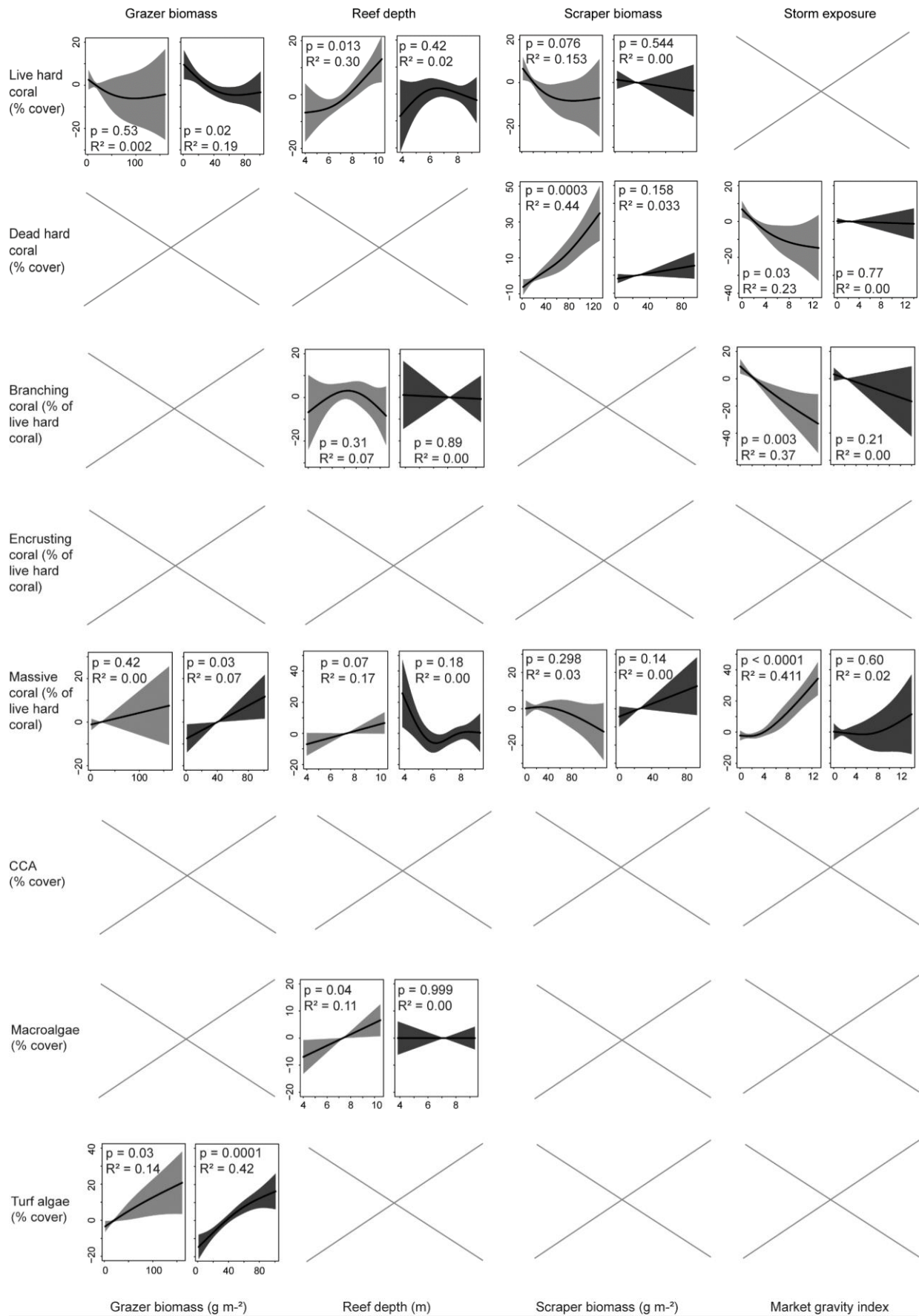
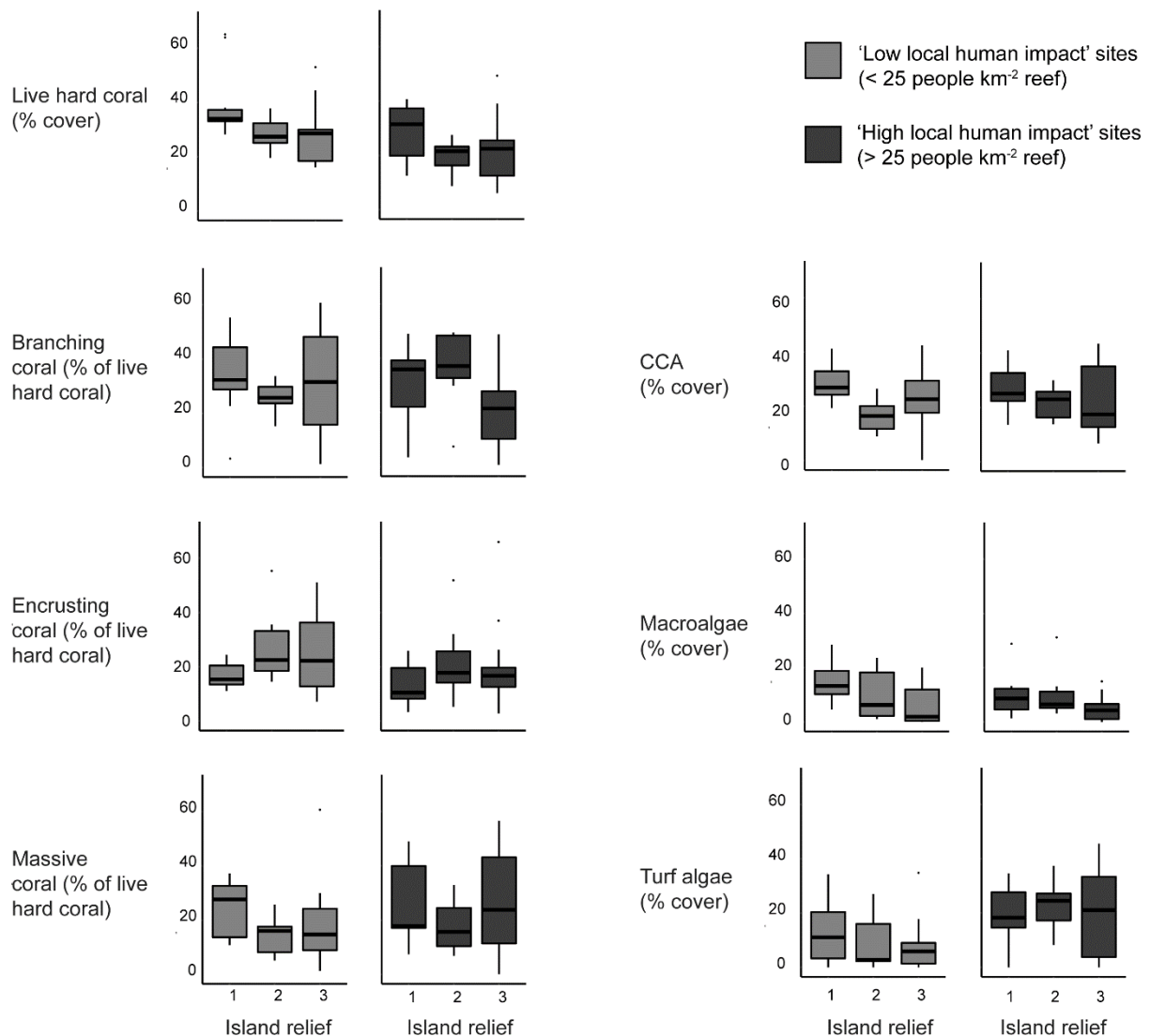


(A)





(B)



**Supplementary Figure 6** – Individual relationships between selected predictors for each respective response variables as per best-fit model outcomes. (A) Smoother plots of normalised residuals from generalised additive mixed effect models (*gamm4* package) with 95% confidence intervals (shaded areas). Plots are based on the \$gam output from these models. These graphs provide relationships between individual response variables and predictors that were selected for best-fit models (those with Akaike weight > 0.05; see Figure 4; Supplementary Table 4) at outer reef sites with low and/or high local human impacts. Plots are provided in terms of reefs exposed to low (light grey/left panel) *versus* high (dark grey/right panel) local impact as determined using a threshold of 25 humans km<sup>-2</sup> reef. Large crosses (X) mean that the predictor was not selected for best-fit models for reefs exposed to either impact level. (B) Boxplots conveying relationships between the predictor island relief and benthic response variables for which it was selected for best-fit models (i.e. those with Akaike weight > 0.05; see Figure 4; Supplementary Table 4).