

Hypothesis	Model (R Package)	Response Variable	Scale	Equation (Response ~ Predictors)
Herbivore	lmer (lme4)	Algal overgrowth (AO)	Module	$AO \sim UB + HFB + R + S + (R \times S) + (1 m) + (1 t)$
Herbivore	lmer (lme4)	Coral recruitment (CR)	Module	$CR \sim UB + HFB + AO + R + S + (R \times S) + (1 m) + (1 t)$
Herbivore	glmmTMB (glmmTMB)	Coral survival (CS)	Module	$CS \sim UB + HFB + AO + R + S + (R \times S) + (1 m) + (1 t)$
Herbivore	lmer (lme4)	Coral growth (CG)	Module	$CG \sim UB + HFB + AO + R + S + (R \times S) + (1 m) + (1 t)$
Reefscape/Shelter (R/S)	lmer (lme4)	Urchin biomass (UB)	Module	$UB \sim R + S + (R \times S) + (1 m) + (1 t)$
Reefscape/Shelter (R/S)	lmer (lme4)	Herbivorous fish biomass (HFB)	Module	$HB \sim R + S + (R \times S) + (1 m) + (1 t)$
Reefscape/Shelter (R/S)	lmer (lme4)	Algal overgrowth (AO)	Colony	$AO \sim R + S + (R \times S) + (1 ID) + (1 m) + (1 t)$
Reefscape/Shelter (R/S)	lmer (lme4)	Coral recruitment (CR)	Module	$CR \sim R + S + (R \times S) + (1 m) + (1 t)$
Reefscape/Shelter (R/S)	glmmTMB (glmmTMB)	Coral survival (CS)	Module	$CS \sim R + S + (R \times S) + (1 m) + (1 t)$
Reefscape/Shelter (R/S)	lmer (lme4)	Coral growth (CG)	Colony	$CG \sim R + S + (R \times S) + (1 ID) + (1 m) + (1 t)$