

	Coral Holobiont Performance	Coral Symbiont Performance	Energetic Trade-off	Regenerative Capacity
Response Variable(s)	Respiration rate	Photosynthesis rate and photosynthetic efficiency (Fv/Fm)	Growth rate	Wound closure and structure re-formation rate
Details	Respiration rate is a measurement of coral holobiont metabolism (host, symbiont, bacteria). Respiration consumes resources produced by photosynthesis and is sensitive to factors that are energetically costly.	Photosynthetic rate is a measurement of symbiont productivity which is the primary source of oxygen and nutritional energy for the coral host to fuel metabolic processes.	Growth rate is a measurement of skeletal accretion. Growth is posited to compete for energy with reproduction and regeneration.	Wound closure and body part re-formation rate are measurements of regeneration. Damaged or lost tissue and skeleton removes surface area available for energy aquisition. Regeneration requires energy to fuel repair processes including wound closure, reconstructing corallites, and new polyp formation.
Rationale	Increased respiration will indicate a colony-level stress response, placing energetic constraints on regeneration.	Reduced photosynthesis will lower productivity, supplying less energy for regeneration, especially if respiration rates are increased with stressors.	Synchronous growth between unwounded and wounded corals indicates no apparant trade off with regeneration. Asynchronous growth among unwounded and wounded corals with the addition of elevated temperature indicates a temperature mediated trade-off.	Synchronous wound closure and structure re-formation indicates no apparant differences in regeneration capacity between wound type. Asynchronous wound closure and structure re-formation between wound types with the addition of elevated temperature indicates a temperature mediated regeneration capacity.