Coral Symbiont Performance

Response Variable(s)

Photosynthesis rate and photosynthetic efficiency (Fv/Fm)

Details

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. Photosynthetic efficiency is the capacity of lightharvesting machinery to capture and convert light energy into photosynthetic products.

Rationale

Reduced photosynthesis and photosynthetic efficiency (Fv/Fm) lowers productivity and threatens symbiosis. Aquisition of new energy to support regeneration is lowered and/or compromised, especially if respiration rates are increased with stressors.

Hypotheses If stressors decrease photosynthesis and/or photosynthetic efficiency, then energetic contraints will be placed on regeneration and/or growth.