Datasets and Code for Statistical Analyses Described in the publication

Short ML....... (INSERT FINAL CITATION)

See Short et al., 2024 for description of methods and results.

**All fecundity and fertility ONLY analyses are located in FINAL\_REPRODUCTIVE\_STATS\_GITHUB\_2024.09.28.**

**All trophic analyses AND trophic + reproduction analyses are located in FINAL\_TROPHIC\_STATS\_GITHUB\_2024.10.06.**

**Water quality data belongs to the Florida Department of Environmental Protection and can be provided upon request from FDEP by contacting \_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

Dataset headers are generally straightforward. Here are the column headers defined:

* + Year = year samples were collected
  + Colony ID = temporary tag assigned upon collection
  + Surface\_Area = outlined surface area of live tissue
  + Size\_Class = surface area of colony grouped into one of four categories
    - 1 = 13.6-50.9cm2, 2 = 51.0-99.9cm2, 3 = 100.0-150.9cm2, 4 = 151.0-288.0cm2
  + Diameter = colony’s longest diameter
  + Exsitu.Ocean = if the sample was taken from corals *ex situ* or *in situ*
  + Site = *ex situ*, Port, Reef 1, Reef 2
  + Fertility = Y (fertile) or N (not fertile)
  + M/F (or M\_F) = M (male), F (female), 0 (not fertile)
  + Max\_Cross = slide with highest mean number of oocytes or spermaries per polyp
  + Mesentary = slide with highest mean number of oocytes or spermaries per polyp
  + Cross\_Mes = Max\_Cross \* Mesentary
  + Sample\_Name, Close Lab ID, ID = all identifiers for the coral colony at different stages of processing
  + Tissue\_Type = coral, endosymbiont, POM, or zooplankton tissues processed for δ15N amino acid analysis
  + Ala, Gly, Thr, Ser, Val, Leu, Ile, Pro, Asp, Glu, Phe, Lys = shorthand for the amino acids analyzed
  + Date = data of sample collection
  + Set Temperature = temperature tanks were set to for analysis
  + Temperature\_C and Temperature\_F = measured temperature reading in degrees Celsius and Fahrenheit, respectively
  + Salinity = measured salinity (ppm)