Supplemental Table 1. ANOSIM of Macroalgal-associated and Coral-associated Microbial Communities. Global R is 0.772 and significance level of sample statistic is 0.001. Bold text indicates a significant difference.

1. Macroalgal-macroalgal comparisons

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample | *D. menstrualis* | *G. obtusata* | *H. tuna* | *L. variegata* |
| *G. obtusata* | **R= 0.93,** **p = 0.048** |  |  |  |
| *H. tuna* | **R= 0.24,** **p = 0.016** | R= 0.36, p = 0.143 |  |  |
| *L. variegata* | **R= 0.28,** **p = 0.024** | **R= 0.64,** **p = 0.048** | **R= 0.25,** **p = 0.032** |  |
| *S. polyceratium* | **R= 1.00,** **p = 0.008** | **R= 1.00,** **p = 0.048** | **R= 0.98,** **p = 0.008** | **R= 1.00,** **p = 0.008** |

1. Macroalgal-Coral comparisons

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | *D. menstrualis* | *G. obtusata* | *H. tuna* | *L. variegata* | *S. polyceratium* |
| Control Corals | **R= 0.93,** **p = 0.018** | R= 1.00, p = 0.100 | **R= 0.67,** **p = 0.018** | **R= 0.98,** **p = 0.018** | **R= 1.00,** **p = 0.018** |
| *D. menstrualis -*Corals | **R= 0.63,** **p = 0.008** | R= 0.64, p = 0.133 | **R= 0.71,** **p = 0.008** | **R= 0.72,** **p = 0.008** | **R= 0.73,** **p = 0.008** |
| *G. obtusata -*Corals | **R= 0.78,** **p = 0.008** | R= 1.00, p = 0.067 | **R= 0.77,** **p = 0.008** | **R= 0.94,** **p = 0.008** | **R= 1.00,** **p = 0.008** |
| *H. tuna* -Corals | **R= 0.97,** **p = 0.018** | R= 1.00, p = 0.100 | **R= 0.86,** **p = 0.018** | **R= 1.00,** **p = 0.018** | **R= 1.00,** **p = 0.018** |
| *L. variegata*-Corals | **R= 0.73,** **p = 0.008** | R= 1.00, p = 0.067 | **R= 0.74,** **p = 0.008** | **R= 0.85,** **p = 0.008** | **R= 1.00,** **p = 0.008** |
| *S. polyceratium* -Corals | **R= 0.63,** **p = 0.008** | R= 0.79, p = 0.067 | **R= 0.31,** **p = 0.048** | **R= 0.85,** **p = 0.008** | **R= 1.00,** **p = 0.008** |

1. Coral-Coral comparisons

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample | *D. menstrualis -*Corals | *G. obtusata -*Corals | *H. tuna -*Corals | *L. variegata-*Corals | *S. polyceratium -*Corals |
| Control Corals | R= -0.07, p = 0.657 | **R= 0.69,** **p = 0.029** | R= 1.00, p = 0.100 | R= 0.32, p = 0.143 | **R= 0.82,** **p = 0.029** |
| *D. menstrualis -* Corals | R= 0.18, p = 0.171 | R= 0.17, p = 0.229 | R= 0.14, p = 0.257 | **R= 0.48,** **p = 0.029** |
| *G. obtusata -* Corals | R= 0.52, p = 0.057 | R= 0.18, p = 0.229 | **R= 0.89,** **p = 0.029** |
| *H. tuna* - Corals | R= 0.43, p = 0.086 | **R= 0.87,** **p = 0.029** |
| *L. variegata*- Corals | **R= 0.74,** **p = 0.029** |