

Supplementary Materials

The Prokaryotic Microbiome of *Acropora digitifera* is Stable Under Short-Term Artificial Light Pollution

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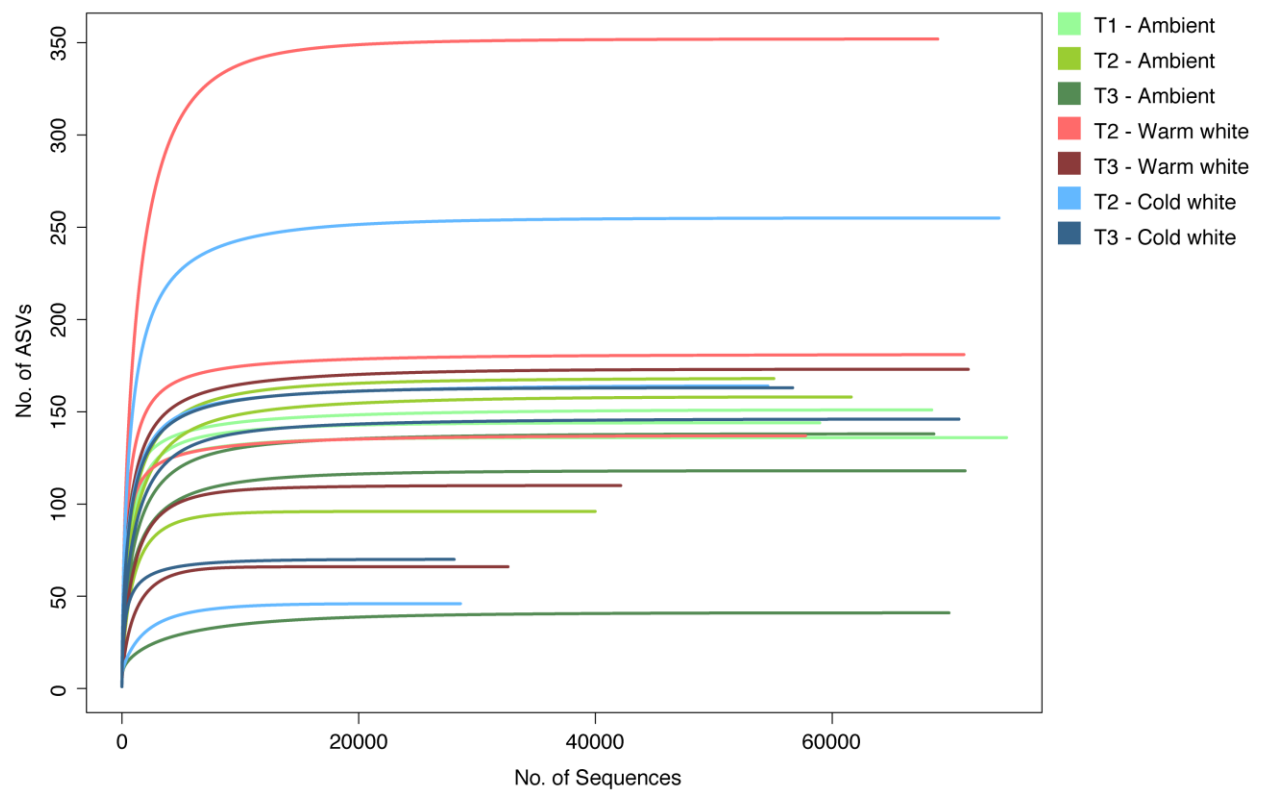


Figure S1. Rarefaction curves for all samples based on number of ASVs identified by sequencing of the 16S rRNA V4 region.

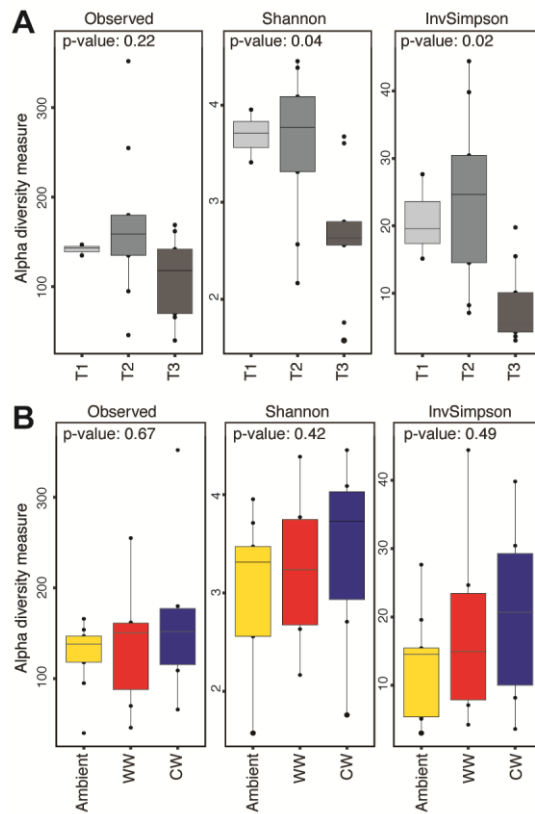


Figure S2. Alpha diversity of the *Acropora digitifera* microbiome. Observed ASVs, Shannon, and Inverse Simpson indices across (A) timepoints (T1, January; T2, February; T3, March) or (B) treatments (ambient moonlight; WW light, warm white; CW, cold white light). Kruskal-Wallis test p-values for comparisons between treatments and timepoints are shown. p-values < 0.05 indicate significant difference of the global statistics.

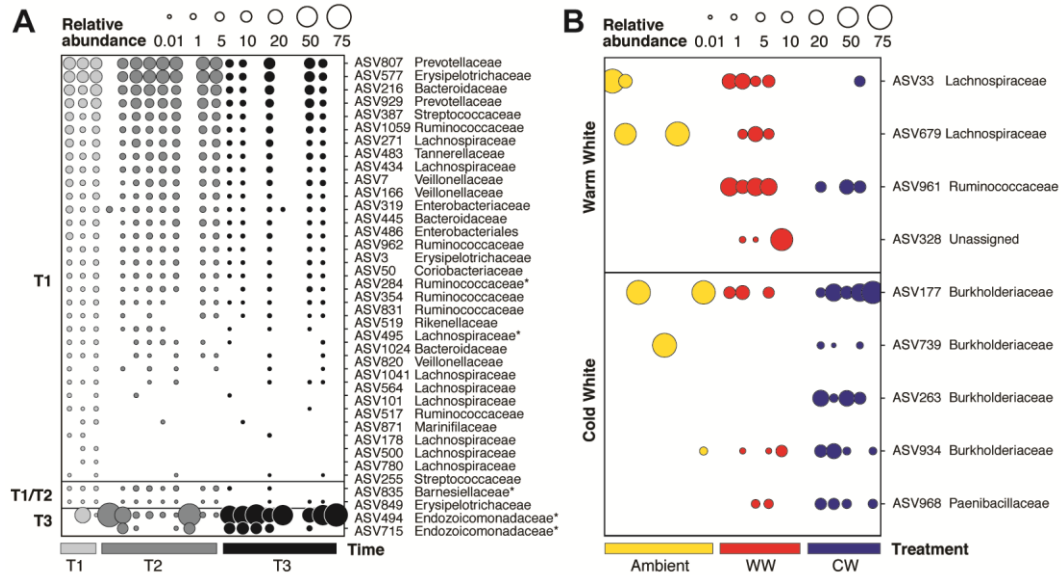


Figure S3. Bacterial indicator taxa for timepoints and light treatments. The relative abundance of ASVs significantly associated with specific (A) timepoints (T1, January; T2, February; T3, March) or (B) treatments (ambient moonlight, ambient; warm white, WW; cold white, CW), as indicated on the left side of the graphs, are shown. Bacterial indicator taxa were identified using the indicpecies algorithm (p-value <0.05). ASVs with asterisks were also identified as differentially abundant using ALDEx2 (Figure 3).

Table S1. Environmental conditions in experimental tanks from January to March 2019.

| Parameter | Treatment tanks | Average (\pmSD) |
|-----------------------------|------------------------|-------------------------------------|
| Temperature ($^{\circ}$ C) | Ambient (T1) | 26.80 \pm 0.16 |
| | Ambient (T2) | 27.34 \pm 0.28 |
| | Ambient (T3) | 28.79 \pm 0.44 |
| | Cold white (T1) | 26.52 \pm 0.45 |
| | Cold white (T2) | 27.19 \pm 0.35 |
| | Cold white (T3) | 28.57 \pm 0.25 |
| | Warm white (T1) | 27.03 \pm 0.17 |
| | Warm white (T2) | 27.21 \pm 0.33 |
| | Warm white (T3) | 28.65 \pm 0.25 |
| Salinity | Ambient | 31.33 \pm 0.74 |
| | Cold white | 31.48 \pm 0.71 |
| | Warm white | 31.42 \pm 0.73 |
| pH | Ambient | 7.90 \pm 0.14 |
| | Cold white | 7.92 \pm 0.13 |
| | Warm white | 7.89 \pm 0.13 |
| DO (mg/L) | Ambient | 4.70 \pm 2.25 |
| | Cold white | 4.57 \pm 2.04 |
| | Warm white | 4.42 \pm 2.09 |

Table S2. Information on *Acropora digitifera* colonies used in the study.

| Sample name | Colony ID | Time | Treatment |
|-----------------------|-----------|--|------------|
| Ambient January_1 | DA42 | T1-January (25 January 2019; after 3 weeks acclimatization) | Ambient |
| Ambient January_2 | DA43 | | |
| Ambient January_3 | DB3 | | |
| Cold white February_1 | DB3 | T2-February (25 February 2019; 1 month exposure) | Cold white |
| Cold white February_2 | DB4 | | |
| Cold white February_3 | DB5 | | |
| Warm white February_1 | DR22 | | Warm white |
| Warm white February_2 | DR23 | | |
| Warm white February_3 | DR24 | | |
| Ambient February_1 | DA41 | T3-March (30 March 2019; 2 months exposure; spawning night) | Ambient |
| Ambient February_2 | DA43 | | |
| Ambient February_3 | DA44 | | |
| Cold white March_1 | DB2 | T3-March (30 March 2019; 2 months exposure; spawning night) | Cold white |
| Cold white March_2 | DB3 | | |
| Cold white March_3 | DB4 | | |
| Warm white March_1 | DR22 | | Warm white |
| Warm white March_2 | DR23 | | |
| Warm white March_3 | DR24 | | |
| Ambient March_1 | DA41 | T3-March (30 March 2019; 2 months exposure; spawning night) | Ambient |
| Ambient March_2 | DA42 | | |
| Ambient March_3 | DA43 | | |