

Table S1. Experimental design parameters utilized in the study.

| Metadata Type | Conditions or Methods | Units or Other Identifiers | |
|--|---|---|---|
| Coral collection | Latitude and longitude at collection site | 24.982331215146388, -80.43650562858194 | |
| | Collection depth | 6 Meters | |
| | Collection date(s) | 5/20/2018, 6/4/2019 | |
| | Coral species | <i>Acropora cervicornis</i> | |
| | Coral morphology | Branching | |
| | Acclimation post collection prior to experiment | 3 Days | |
| | Experimental design | Name of location | Keys Marine Lab, Layton, FL, USA |
| Bleaching stress temperature period | | 05/29/18-06/24/18 | |
| System type | | Outdoor Flow-Through | |
| No. tanks per treatment | | 3 Tanks Per treatment | |
| No. coral genets (colonies) per treatment | | 20 Genets per treatment | |
| No. coral genets (colonies) per tank within treatments | | 20 Colonies per tank | |
| No. recovery days post heat-stress | | 3 recovery days | |
| Experimental temperature conditions | | Heat stress temperature above MMM per treatment | 30 °C for acclimation, 32 °C for secondary heat stress. |
| | | Control temperature | 27 °C |
| | | Baseline temperature | 27 °C |
| | Temperature ramp-up rate | 3 °C/d for acclimation, 5 °C/d for secondary 48 hours of acclimation, 528 hours of secondary heat stress | |
| Other experimental conditions | Duration at heat stress temperature | Static | |
| | Temperature modulation | Static | |
| | Light conditions | Environmental | |
| | Light cycle | Diurnal | |
| | Water flow velocity | 1.00-2.00 L min ⁻¹ | |
| | Tank turnover | NA | |
| | Seawater filtration | Filtered | |
| Seawater source | Natural | | |

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|-------------------------|---------|
| Salinity | NA |
| Nutrient concentrations | NA |
| Feeding | Not Fed |
| pH | NA |
| Dissolved oxygen | NA |

Table S2. Temperature log for the study.

| Date | Time | Tank 1 | Tank 2 | Tank 3 | Tank 4 | Tank 5 | Tank 6 | Tank 7 | Tank 8 | Tank 9 | Tank 10 | Tank 11 | Tank 12 |
|-----------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 5/29/2018 | am | 27.1 | 27.4 | 27.5 | 27.1 | 26.8 | 27 | 27.2 | 26.9 | 27.1 | 27.1 | 27.2 | 27.1 |
| 5/29/2018 | am | 26.8 | 26.9 | 26.8 | 27.3 | 26.9 | 27.2 | 27.7 | 27.4 | 27.4 | 27.1 | 27.3 | 26.9 |
| 5/29/2018 | am | 27.1 | 26.9 | 26.9 | 27.8 | 27.2 | 27.6 | 28.3 | 27.7 | 28 | 26.8 | 27.1 | 27.6 |
| 5/29/2018 | Noon | 26.8 | 27.2 | 27.3 | 28.2 | 27.5 | 28.1 | 28.6 | 28 | 28.4 | 27.4 | 26.8 | 27.4 |
| 5/29/2018 | pm | 27.1 | 27.3 | 27.1 | 29.5 | 28.3 | 28.6 | 29.2 | 28.4 | 29.1 | 27.5 | 27.4 | 27.3 |
| 5/29/2018 | pm | 27.3 | 27 | 26.9 | 29.9 | 28.8 | 29 | 29.6 | 28.4 | 29.4 | 27.3 | 27.6 | 26.8 |
| 5/29/2018 | pm | 26.8 | 26.9 | 27 | 30.3 | 29.6 | 29.4 | 30.2 | 29 | 30.3 | 27.1 | 26.7 | 27.5 |
| 5/30/2018 | am | 27.6 | 27.5 | 27.5 | 31.5 | 32.8 | 32 | 32 | 32.9 | 31.5 | 26.7 | 27.2 | 27.2 |
| 5/30/2018 | am | 27.5 | 27.6 | 27.5 | 31.5 | 31.7 | 32.3 | 31.4 | 32.1 | 31.5 | 27 | 27 | 26.7 |
| 5/30/2018 | am | 27.5 | 27 | 27.1 | 31.5 | 32.9 | 31.4 | 32.1 | 32.9 | 32.6 | 27.6 | 27.5 | 26.8 |
| 5/30/2018 | Noon | 27.4 | 27.1 | 27.1 | 32.4 | 32.8 | 31.4 | 32.1 | 32.7 | 32.3 | 27.4 | 26.7 | 27.3 |
| 5/30/2018 | pm | 27.5 | 27.3 | 27.2 | 31.8 | 32.6 | 32.4 | 32.4 | 32.7 | 32.1 | 27.4 | 27.5 | 27.1 |
| 5/30/2018 | pm | 27.5 | 26.9 | 27.6 | 31.8 | 31.3 | 31.7 | 31.7 | 32.2 | 32.3 | 27.1 | 26.7 | 26.8 |
| 5/30/2018 | pm | 26.8 | 27.2 | 27 | 32.9 | 32.6 | 31.6 | 32.3 | 31.8 | 32.6 | 26.9 | 27 | 26.9 |
| 6/1/2018 | am | 26.8 | 27.3 | 27.3 | 32 | 31.9 | 32 | 32.5 | 31.6 | 31.7 | 27.5 | 27 | 26.8 |
| 6/1/2018 | am | 26.7 | 27.6 | 27.5 | 31.4 | 32.8 | 32.4 | 32.9 | 31.5 | 32.7 | 27.5 | 26.8 | 27.4 |
| 6/1/2018 | am | 27.5 | 27 | 26.7 | 32.8 | 32.7 | 31.8 | 31.4 | 31.3 | 31.9 | 27.2 | 27.5 | 27.1 |
| 6/1/2018 | Noon | 26.8 | 27.5 | 27.2 | 32.5 | 32.9 | 32.3 | 32.8 | 31.5 | 31.3 | 27.5 | 27.2 | 27.3 |
| 6/1/2018 | pm | 27.4 | 27.4 | 27.3 | 32.8 | 32.5 | 32.7 | 32.6 | 31.6 | 32.7 | 26.8 | 27.3 | 27.5 |

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|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 6/1/2018 | pm | 26.7 | 26.7 | 27.6 | 31.4 | 32.2 | 31.5 | 32.4 | 31.3 | 31.5 | 27.6 | 26.7 | 27.5 |
| 6/1/2018 | pm | 27.5 | 26.8 | 27.1 | 32 | 32.4 | 31.7 | 32.7 | 31.9 | 32.1 | 26.9 | 27 | 27.3 |
| 6/2/2018 | am | 26.7 | 26.8 | 26.9 | 32.4 | 31.9 | 31.7 | 32.1 | 31.4 | 31.7 | 26.7 | 27.6 | 27.4 |
| 6/2/2018 | am | 27.4 | 27.4 | 27 | 32.1 | 32.1 | 31.6 | 32.5 | 31.5 | 32.5 | 27.3 | 27.2 | 26.7 |
| 6/2/2018 | am | 27 | 26.9 | 27.3 | 31.5 | 32.2 | 32.9 | 31.9 | 31.5 | 31.8 | 27.3 | 27.5 | 27.5 |
| 6/2/2018 | Noon | 26.8 | 27.1 | 27.1 | 31.6 | 32.2 | 31.6 | 32.1 | 32.7 | 31.9 | 27.2 | 27.2 | 27.5 |
| 6/2/2018 | pm | 27 | 27.5 | 26.8 | 31.7 | 32.5 | 32 | 31.6 | 32.7 | 32.7 | 27.5 | 26.9 | 27 |
| 6/2/2018 | pm | 26.9 | 27.4 | 26.7 | 31.5 | 31.4 | 32.1 | 32.9 | 31.3 | 32.4 | 26.8 | 27.6 | 27.3 |
| 6/2/2018 | pm | 27.2 | 26.8 | 27.6 | 31.4 | 32 | 32.8 | 31.8 | 32.2 | 32.4 | 26.9 | 27 | 26.8 |
| 6/3/2018 | am | 27.1 | 27.1 | 27.3 | 32.1 | 31.3 | 32.7 | 32.9 | 31.6 | 32.4 | 26.8 | 26.9 | 26.7 |
| 6/3/2018 | am | 26.9 | 26.8 | 27.2 | 32.5 | 32.2 | 31.9 | 32.4 | 32.4 | 32.2 | 27.1 | 26.9 | 26.7 |
| 6/3/2018 | am | 27.2 | 27 | 27.3 | 32.8 | 31.4 | 32.7 | 32 | 31.5 | 31.4 | 26.7 | 27 | 26.9 |
| 6/3/2018 | Noon | 26.7 | 27.5 | 26.7 | 31.3 | 32.3 | 32.8 | 31.9 | 32.8 | 32.4 | 27.4 | 27.2 | 26.8 |
| 6/3/2018 | pm | 27 | 26.7 | 27.4 | 31.3 | 32.7 | 32.5 | 31.5 | 31.9 | 31.7 | 27.3 | 27 | 27.5 |
| 6/3/2018 | pm | 27.5 | 27.6 | 27 | 31.7 | 31.9 | 32.4 | 32 | 32.7 | 31.9 | 26.9 | 27.3 | 27 |
| 6/3/2018 | pm | 27.3 | 27 | 27.5 | 32.6 | 31.9 | 32.9 | 32.5 | 32.5 | 32.8 | 26.7 | 27.3 | 27.5 |
| 6/4/2018 | am | 26.8 | 27.5 | 27.2 | 31.8 | 31.6 | 32 | 32 | 32.2 | 32.9 | 27.2 | 27.4 | 27.1 |
| 6/4/2018 | am | 27 | 27.5 | 27.1 | 32.3 | 31.6 | 32.8 | 32.1 | 31.3 | 32.8 | 27.1 | 27.5 | 27.4 |
| 6/4/2018 | am | 27.1 | 27.6 | 26.8 | 31.7 | 32.2 | 31.3 | 32.3 | 32.9 | 31.5 | 27.2 | 26.7 | 27.5 |
| 6/4/2018 | Noon | 26.7 | 27.1 | 27.5 | 32.8 | 31.8 | 31.4 | 32 | 32.2 | 32.8 | 27.1 | 26.7 | 26.8 |
| 6/4/2018 | pm | 27.3 | 27.6 | 27.2 | 31.7 | 32.2 | 32.1 | 32.8 | 32 | 32.8 | 27.1 | 27.1 | 27.2 |
| 6/4/2018 | pm | 27.3 | 27 | 26.7 | 32.5 | 31.7 | 32.8 | 32.5 | 32.8 | 32.8 | 26.9 | 27.3 | 26.9 |
| 6/4/2018 | pm | 27.3 | 26.9 | 26.9 | 32 | 32.1 | 32.2 | 32.5 | 32.7 | 32.3 | 27.4 | 26.9 | 27.4 |
| 6/5/2018 | am | 27.2 | 27.2 | 27.6 | 32.1 | 32.7 | 32.3 | 32.2 | 31.8 | 31.7 | 27.5 | 26.8 | 27.5 |
| 6/5/2018 | am | 27.5 | 27.2 | 27.4 | 32.2 | 32.4 | 31.7 | 32.3 | 31.6 | 32.5 | 27 | 26.7 | 26.9 |
| 6/5/2018 | am | 27.6 | 26.9 | 27.1 | 31.3 | 31.9 | 32.4 | 32.8 | 31.3 | 32.9 | 27.5 | 27.2 | 27.6 |
| 6/5/2018 | Noon | 26.8 | 27.4 | 27.4 | 32.6 | 31.4 | 32.9 | 32.8 | 31.3 | 32.2 | 27.1 | 27.5 | 27.4 |
| 6/5/2018 | pm | 27 | 27.4 | 27.4 | 32.2 | 31.4 | 31.5 | 32.7 | 32.6 | 31.9 | 27.1 | 26.8 | 26.7 |
| 6/5/2018 | pm | 27 | 27.2 | 27.2 | 32.3 | 32.2 | 32.1 | 31.6 | 31.3 | 31.7 | 27.5 | 26.7 | 27.1 |
| 6/5/2018 | pm | 27.5 | 27 | 26.9 | 31.3 | 32.6 | 31.3 | 31.7 | 31.5 | 31.5 | 27.6 | 27.1 | 26.9 |

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|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 6/6/2018 | am | 27.3 | 27.3 | 27.4 | 32.2 | 32.7 | 32.1 | 31.3 | 32.3 | 31.9 | 27.3 | 27.1 | 26.9 |
| 6/6/2018 | am | 27.6 | 27.4 | 27.6 | 32.1 | 31.6 | 31.3 | 32.3 | 32.1 | 32.9 | 27.6 | 26.8 | 26.8 |
| 6/6/2018 | am | 27.5 | 27.5 | 27.2 | 31.5 | 32.1 | 32.4 | 32.2 | 31.3 | 32.5 | 27.1 | 26.8 | 27.5 |
| 6/6/2018 | Noon | 27.6 | 27.2 | 27.1 | 31.3 | 31.5 | 32 | 32.9 | 32.9 | 32.7 | 27.1 | 26.8 | 26.9 |
| 6/6/2018 | pm | 27.5 | 27.1 | 27.3 | 32.9 | 32.7 | 31.7 | 32.7 | 32.5 | 31.6 | 27.2 | 27.2 | 27 |
| 6/6/2018 | pm | 27.4 | 27.2 | 27.2 | 32.8 | 31.7 | 32.9 | 31.9 | 31.4 | 31.6 | 27 | 27.5 | 27.5 |
| 6/6/2018 | pm | 26.7 | 26.9 | 27.6 | 32.8 | 31.9 | 31.6 | 32.2 | 31.8 | 31.4 | 27.6 | 26.7 | 27.5 |
| 6/6/2018 | am | 27 | 27.3 | 26.7 | 32.8 | 32.3 | 31.4 | 31.3 | 31.9 | 31.8 | 27.5 | 27.6 | 27.3 |
| 6/7/2018 | am | 27.3 | 26.8 | 26.9 | 31.6 | 32.4 | 32.6 | 32.5 | 31.6 | 31.8 | 27 | 27.3 | 27.1 |
| 6/7/2018 | am | 27 | 27.5 | 26.7 | 31.4 | 32.8 | 32.5 | 32.4 | 31.3 | 31.5 | 27.6 | 26.9 | 26.9 |
| 6/7/2018 | Noon | 27.2 | 27.2 | 27.6 | 31.3 | 32.8 | 31.6 | 31.4 | 32.4 | 31.3 | 27.5 | 27.3 | 26.9 |
| 6/7/2018 | pm | 26.7 | 27.5 | 27 | 32.3 | 31.9 | 32.9 | 32.7 | 32.5 | 32.2 | 26.8 | 26.8 | 27.5 |
| 6/7/2018 | pm | 26.8 | 27.4 | 26.8 | 31.5 | 31.5 | 32.7 | 33.3 | 32.1 | 32.2 | 27.6 | 26.8 | 27 |
| 6/7/2018 | pm | 27 | 26.7 | 27.1 | 31.5 | 31.8 | 31.3 | 32.5 | 31.7 | 32.1 | 27.4 | 27.3 | 26.8 |
| 6/8/2018 | am | 27.2 | 27.6 | 27.6 | 32.2 | 31.4 | 32.6 | 31.5 | 32.3 | 32.2 | 27 | 27.3 | 27.2 |
| 6/8/2018 | am | 27.3 | 26.8 | 27.6 | 32.3 | 32.8 | 32.9 | 31.4 | 32.9 | 32.8 | 26.9 | 27.3 | 27.3 |
| 6/8/2018 | am | 27.4 | 27.1 | 26.9 | 32 | 32.4 | 32.7 | 31.8 | 32.5 | 32.2 | 26.7 | 27 | 27.1 |
| 6/8/2018 | Noon | 26.8 | 27.3 | 27.6 | 32 | 32.8 | 31.7 | 32.7 | 32.2 | 32.1 | 27.1 | 27.1 | 27.4 |
| 6/8/2018 | pm | 26.9 | 27.4 | 27.4 | 31.9 | 31.8 | 32.5 | 32.9 | 31.5 | 32.3 | 27.2 | 26.8 | 27.5 |
| 6/8/2018 | pm | 27.6 | 27.2 | 26.8 | 32.1 | 32.3 | 32.3 | 31.8 | 31.6 | 32.7 | 27.2 | 27.5 | 26.9 |
| 6/8/2018 | pm | 26.8 | 26.9 | 27.3 | 31.7 | 32.3 | 32.2 | 31.6 | 32.9 | 32.2 | 27.6 | 27.3 | 27.5 |
| 6/9/2018 | am | 27.2 | 27.5 | 26.9 | 31.3 | 32.1 | 31.5 | 31.6 | 31.4 | 32.3 | 26.9 | 27.1 | 27.6 |
| 6/9/2018 | am | 27.1 | 27.2 | 27.5 | 32.8 | 32.2 | 31.6 | 31.6 | 31.6 | 32.7 | 27.5 | 27 | 27.4 |
| 6/9/2018 | am | 26.7 | 27.5 | 27.2 | 32.4 | 32.7 | 32 | 32 | 32.8 | 31.3 | 27 | 27.2 | 27.4 |
| 6/9/2018 | Noon | 27.1 | 27 | 27.4 | 32.7 | 32.4 | 32 | 31.7 | 32.2 | 32.2 | 26.9 | 27.5 | 26.7 |
| 6/9/2018 | pm | 26.9 | 27 | 27.1 | 31.3 | 31.8 | 31.7 | 32.2 | 31.3 | 32.4 | 27.1 | 27.1 | 27.2 |
| 6/9/2018 | pm | 26.8 | 27 | 27.3 | 32.8 | 32.6 | 31.4 | 32.6 | 32.7 | 31.7 | 27 | 26.7 | 27.1 |
| 6/9/2018 | pm | 27.6 | 27.3 | 26.7 | 32.1 | 31.9 | 31.8 | 32.2 | 32.6 | 32.1 | 27.5 | 27 | 26.7 |
| 6/10/2018 | am | 26.8 | 27.4 | 26.7 | 32.7 | 31.9 | 32.8 | 32.1 | 32.1 | 32 | 26.8 | 27.6 | 26.7 |
| 6/10/2018 | am | 26.8 | 26.7 | 27.4 | 31.9 | 31.5 | 31.6 | 32.2 | 31.6 | 32.3 | 27.1 | 26.9 | 27 |

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|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 6/10/2018 | am | 26.9 | 26.8 | 26.9 | 31.7 | 31.4 | 32.8 | 32 | 32.5 | 31.3 | 27.1 | 27.3 | 26.9 |
| 6/10/2018 | Noon | 27.6 | 27.5 | 27.2 | 31.5 | 32.4 | 32.8 | 31.6 | 31.3 | 32.4 | 27.1 | 26.8 | 27.4 |
| 6/10/2018 | pm | 27.6 | 27.4 | 27 | 32.6 | 32 | 31.7 | 32.7 | 31.8 | 31.7 | 27.2 | 27.6 | 27.5 |
| 6/10/2018 | pm | 27.3 | 27.5 | 27 | 31.3 | 32.5 | 31.7 | 31.5 | 31.8 | 32 | 27.4 | 26.8 | 27.1 |
| 6/10/2018 | pm | 27.1 | 27.5 | 26.7 | 32 | 32.2 | 32.1 | 31.9 | 32.6 | 32.8 | 27.3 | 26.9 | 26.8 |
| 6/11/2018 | am | 27.2 | 27.2 | 26.7 | 31.6 | 31.9 | 31.3 | 31.5 | 32.7 | 32.7 | 27.1 | 26.8 | 27.6 |
| 6/11/2018 | am | 27.6 | 27.5 | 27 | 31.6 | 32.3 | 32.8 | 32.7 | 32.8 | 31.6 | 27 | 27.5 | 27.6 |
| 6/11/2018 | am | 27.2 | 26.9 | 26.7 | 32.5 | 31.4 | 32.6 | 31.9 | 31.7 | 32.3 | 26.7 | 26.9 | 27.4 |
| 6/11/2018 | Noon | 27.1 | 27.6 | 27.1 | 32.4 | 31.5 | 32.3 | 31.7 | 31.7 | 31.4 | 26.9 | 27 | 26.8 |
| 6/11/2018 | pm | 27.1 | 27.3 | 26.8 | 31.4 | 32.9 | 32.1 | 32.8 | 32.1 | 31.7 | 27.3 | 27 | 27.4 |
| 6/11/2018 | pm | 27 | 26.7 | 27.1 | 32.8 | 32.7 | 31.5 | 32.8 | 32.1 | 32.1 | 27.3 | 27.4 | 27.3 |
| 6/11/2018 | pm | 27.6 | 26.9 | 26.8 | 32.6 | 32.3 | 31.8 | 32.7 | 32.2 | 31.5 | 27.1 | 27.2 | 26.9 |
| 6/12/2018 | am | 27.5 | 26.9 | 26.8 | 32.5 | 31.7 | 32.5 | 32.4 | 31.4 | 31.4 | 26.9 | 26.8 | 26.8 |
| 6/12/2018 | am | 27.6 | 27.5 | 26.8 | 32.3 | 32.3 | 31.3 | 31.8 | 31.7 | 32.1 | 27.5 | 27.1 | 27.3 |
| 6/12/2018 | am | 27.6 | 26.9 | 26.9 | 31.3 | 32 | 32.5 | 32 | 32 | 32.3 | 27.5 | 27.2 | 26.8 |
| 6/12/2018 | Noon | 27.2 | 26.9 | 27.2 | 32.7 | 31.5 | 31.7 | 32.4 | 32.1 | 32.8 | 27.5 | 27 | 26.9 |
| 6/12/2018 | pm | 27 | 26.9 | 27.4 | 32.7 | 31.5 | 32.4 | 32.3 | 32.2 | 32.9 | 27.3 | 27.2 | 27.3 |
| 6/12/2018 | pm | 27.6 | 27.2 | 26.7 | 31.5 | 31.8 | 32.9 | 31.8 | 31.3 | 31.7 | 27.4 | 26.9 | 27.4 |
| 6/12/2018 | pm | 27.5 | 27.2 | 26.9 | 31.3 | 31.4 | 31.8 | 31.6 | 32.8 | 32.6 | 26.8 | 27.2 | 27.1 |
| 6/13/2018 | am | 26.9 | 27.1 | 27.6 | 31.5 | 32.6 | 31.9 | 32.8 | 31.3 | 32.8 | 27.6 | 27.3 | 26.8 |
| 6/13/2018 | am | 27.6 | 27.2 | 26.8 | 31.6 | 32.3 | 31.7 | 32.9 | 32.8 | 31.7 | 27.5 | 27.4 | 27.4 |
| 6/13/2018 | am | 27.3 | 26.7 | 26.7 | 31.9 | 32.6 | 31.4 | 31.8 | 32.7 | 31.8 | 26.7 | 27 | 26.7 |
| 6/13/2018 | Noon | 27 | 26.9 | 27.3 | 31.6 | 32.9 | 31.7 | 32.6 | 31.9 | 31.5 | 26.8 | 26.7 | 27 |
| 6/13/2018 | pm | 26.9 | 27.1 | 27.4 | 32.9 | 32.5 | 31.6 | 31.6 | 31.4 | 31.8 | 27.4 | 27.3 | 27.4 |
| 6/13/2018 | pm | 26.8 | 26.7 | 26.8 | 32.4 | 31.9 | 32.6 | 31.6 | 31.9 | 31.7 | 26.7 | 27.4 | 26.8 |
| 6/13/2018 | pm | 27.1 | 27.4 | 26.8 | 32.5 | 32.3 | 32.8 | 32.1 | 32.1 | 31.5 | 26.9 | 27.1 | 27.6 |
| 6/14/2018 | am | 26.8 | 27.4 | 26.8 | 31.7 | 31.9 | 31.9 | 31.8 | 32.4 | 31.9 | 27.1 | 26.9 | 27.1 |
| 6/14/2018 | am | 26.9 | 27.5 | 26.9 | 31.7 | 32 | 32.4 | 32.5 | 31.7 | 32.1 | 26.7 | 27 | 27.1 |
| 6/14/2018 | am | 27.4 | 26.7 | 27 | 32.5 | 32 | 32 | 31.6 | 32.2 | 32.1 | 27.3 | 27.2 | 27.4 |
| 6/14/2018 | Noon | 27.3 | 27.3 | 27.2 | 32 | 32.2 | 32 | 32 | 32.4 | 32.1 | 26.7 | 27.3 | 27.6 |

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|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 6/14/2018 | pm | 27.3 | 26.7 | 27.4 | 31.9 | 31.3 | 32.8 | 31.4 | 31.4 | 32.4 | 27.5 | 27.3 | 27.6 |
| 6/14/2018 | pm | 26.7 | 27.5 | 27.5 | 31.8 | 32.9 | 32.9 | 32.4 | 32.7 | 31.3 | 26.8 | 26.9 | 27.3 |
| 6/14/2018 | pm | 27.3 | 27.2 | 27 | 31.8 | 32.7 | 32.7 | 32.5 | 32.3 | 31.7 | 27.1 | 26.9 | 26.8 |
| 6/15/2018 | am | 27.4 | 26.7 | 26.7 | 32.4 | 32.1 | 32 | 31.8 | 32.1 | 32.1 | 27.4 | 27 | 27.2 |
| 6/15/2018 | am | 27.1 | 27.6 | 26.7 | 32.9 | 32.3 | 31.4 | 32.3 | 31.6 | 32.9 | 27.5 | 27.5 | 27.2 |
| 6/15/2018 | am | 27.5 | 26.9 | 26.7 | 32.6 | 31.4 | 32.7 | 32.8 | 31.9 | 32.7 | 27.5 | 27.5 | 27.4 |
| 6/15/2018 | Noon | 26.8 | 27.2 | 27.2 | 31.5 | 32.9 | 32.6 | 32.6 | 31.9 | 31.7 | 27.6 | 26.9 | 27.5 |
| 6/15/2018 | pm | 26.7 | 27.3 | 26.8 | 32.7 | 31.8 | 31.3 | 31.5 | 32.2 | 32.6 | 27.1 | 27.5 | 27.5 |
| 6/15/2018 | pm | 27.2 | 27 | 26.9 | 31.7 | 32.2 | 32.3 | 31.8 | 31.6 | 32.8 | 27.5 | 27.4 | 27.5 |
| 6/15/2018 | pm | 26.8 | 27.2 | 26.8 | 32.4 | 32.1 | 32.7 | 32.7 | 31.6 | 31.4 | 27.3 | 26.7 | 27.2 |
| 6/16/2018 | am | 27.4 | 26.7 | 27.2 | 32.2 | 32.7 | 32.6 | 32.6 | 31.9 | 31.6 | 26.8 | 27.6 | 27.6 |
| 6/16/2018 | am | 27.3 | 27.1 | 27.6 | 32.4 | 32 | 32.1 | 32.3 | 32.7 | 32.7 | 27.6 | 27.1 | 27.1 |
| 6/16/2018 | am | 26.7 | 26.8 | 27.6 | 32.1 | 32.8 | 31.5 | 32 | 31.9 | 31.8 | 26.9 | 26.7 | 27.6 |
| 6/16/2018 | Noon | 27.6 | 27.2 | 27.6 | 32 | 32.6 | 32.2 | 32.7 | 32.3 | 31.6 | 27.3 | 27.3 | 27.5 |
| 6/16/2018 | pm | 27.5 | 26.7 | 27.1 | 31.6 | 31.9 | 32.4 | 32.5 | 32.5 | 32.1 | 27.3 | 27.3 | 27.3 |
| 6/16/2018 | pm | 27.1 | 26.8 | 27.3 | 32.3 | 32.8 | 32.4 | 32.8 | 31.4 | 31.4 | 26.7 | 26.8 | 27.1 |
| 6/16/2018 | pm | 26.8 | 26.9 | 26.8 | 31.5 | 31.4 | 32.4 | 32 | 31.8 | 31.9 | 27.4 | 27.5 | 26.8 |
| 6/17/2018 | am | 26.7 | 27.3 | 26.9 | 31.8 | 31.7 | 31.4 | 32.6 | 32.8 | 32.2 | 27.4 | 26.9 | 27.3 |
| 6/17/2018 | am | 27.5 | 26.8 | 27.4 | 31.9 | 32.2 | 31.9 | 32.2 | 31.6 | 32.8 | 27 | 27.2 | 26.8 |
| 6/17/2018 | am | 26.7 | 26.9 | 27.3 | 32.4 | 32.8 | 32.3 | 31.4 | 31.5 | 31.6 | 26.9 | 27.1 | 27.1 |
| 6/17/2018 | Noon | 27.2 | 27 | 27.1 | 32 | 31.3 | 32.8 | 31.5 | 31.6 | 31.3 | 27.6 | 27.1 | 27.4 |
| 6/17/2018 | pm | 27.6 | 26.9 | 27.4 | 32.6 | 32.8 | 32 | 32.6 | 31.6 | 31.7 | 27.1 | 27.3 | 27.6 |
| 6/17/2018 | pm | 27.2 | 27.2 | 27.5 | 32.7 | 31.9 | 32.6 | 31.5 | 31.8 | 31.9 | 26.7 | 26.8 | 27 |
| 6/17/2018 | pm | 26.7 | 26.9 | 26.7 | 31.8 | 31.5 | 32.8 | 32.1 | 31.9 | 32.9 | 27.3 | 27.6 | 27 |
| 6/18/2018 | am | 27.1 | 26.9 | 27.6 | 32.7 | 32.5 | 31.8 | 32 | 31.8 | 32.1 | 27.4 | 27 | 27 |
| 6/18/2018 | am | 27.2 | 27.1 | 27.2 | 31.3 | 32.1 | 31.3 | 32.6 | 31.8 | 32.5 | 27 | 26.8 | 27.5 |
| 6/18/2018 | am | 27.3 | 26.9 | 27.2 | 32.2 | 31.5 | 31.6 | 32.1 | 31.3 | 31.4 | 27.1 | 27.2 | 27.4 |
| 6/18/2018 | Noon | 27 | 27 | 27.2 | 31.6 | 31.8 | 32.3 | 32.5 | 32.8 | 31.4 | 27.5 | 27.2 | 27.4 |
| 6/18/2018 | pm | 27.1 | 26.8 | 27.3 | 31.4 | 32.8 | 32.8 | 32.5 | 32.8 | 32.1 | 27 | 27 | 27.1 |
| 6/18/2018 | pm | 27.4 | 27.1 | 27.4 | 32.9 | 32.7 | 31.3 | 31.8 | 31.8 | 32.7 | 27 | 27.1 | 26.9 |

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|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 6/18/2018 | pm | 27.5 | 27.1 | 27.5 | 32 | 31.7 | 32.5 | 32.8 | 32.7 | 32.1 | 26.8 | 27.1 | 26.9 |
| 6/19/2018 | am | 27.5 | 27.4 | 26.8 | 32.9 | 31.9 | 32.1 | 32.5 | 32 | 32.9 | 26.8 | 27 | 27.6 |
| 6/19/2018 | am | 27.2 | 26.8 | 27.2 | 31.9 | 32.3 | 31.6 | 32.1 | 31.8 | 31.5 | 27 | 26.8 | 27.6 |
| 6/19/2018 | am | 27.1 | 27.3 | 27.4 | 32.2 | 32 | 31.9 | 32.2 | 31.7 | 31.8 | 27.5 | 27.5 | 26.7 |
| 6/19/2018 | Noon | 27.6 | 27.1 | 26.8 | 32.6 | 32.6 | 31.7 | 32.6 | 31.8 | 32.8 | 27.1 | 26.8 | 27.6 |
| 6/19/2018 | pm | 27.1 | 27.4 | 26.8 | 32.1 | 31.4 | 32.5 | 32.4 | 31.9 | 31.8 | 27.3 | 26.8 | 27.2 |
| 6/19/2018 | pm | 27.2 | 27.1 | 27.6 | 31.9 | 31.6 | 31.9 | 31.7 | 32.8 | 32.7 | 27.6 | 26.9 | 27.3 |
| 6/19/2018 | pm | 27 | 27.1 | 27.4 | 32.4 | 31.9 | 32.1 | 31.5 | 32.5 | 32.5 | 27 | 26.8 | 26.8 |
| 6/20/2018 | am | 27 | 27.5 | 26.7 | 32.6 | 32.3 | 32.4 | 31.8 | 31.4 | 32.7 | 27.2 | 27.2 | 26.8 |
| 6/20/2018 | am | 27.5 | 26.9 | 27.5 | 32.7 | 31.4 | 32.1 | 31.8 | 32.8 | 31.7 | 27.6 | 27 | 27.5 |
| 6/20/2018 | am | 27.3 | 27.2 | 27 | 31.8 | 31.6 | 31.7 | 32.8 | 32.9 | 31.6 | 27.5 | 27.2 | 27.6 |
| 6/20/2018 | Noon | 27.3 | 27 | 27.2 | 31.5 | 32 | 31.7 | 32.6 | 32.4 | 32.8 | 26.8 | 27 | 27.4 |
| 6/20/2018 | pm | 27.1 | 27.6 | 26.7 | 32.5 | 31.5 | 32.8 | 31.8 | 32.1 | 32.5 | 27.6 | 26.7 | 26.8 |
| 6/20/2018 | pm | 27.5 | 27.5 | 27.5 | 32.9 | 31.6 | 32.7 | 32.3 | 31.9 | 32 | 26.9 | 27.1 | 26.8 |
| 6/20/2018 | pm | 27.2 | 26.8 | 27.6 | 31.4 | 31.6 | 32 | 32 | 32.3 | 32.9 | 26.8 | 26.9 | 27 |
| 6/21/2018 | am | 27.6 | 26.7 | 27.5 | 31.3 | 32 | 31.3 | 32.4 | 32.3 | 32.8 | 26.7 | 27.6 | 27.2 |
| 6/21/2018 | am | 27.4 | 26.8 | 27 | 31.7 | 31.4 | 32.6 | 32.6 | 32.6 | 32.6 | 27.2 | 27.1 | 27.4 |
| 6/21/2018 | am | 26.9 | 27.2 | 27.3 | 32.7 | 31.8 | 31.7 | 32.9 | 32 | 32.6 | 27.5 | 26.9 | 26.9 |
| 6/21/2018 | Noon | 27.3 | 26.7 | 27.3 | 32.7 | 31.3 | 32.5 | 32.1 | 32.5 | 32.9 | 26.8 | 27.4 | 27.6 |
| 6/21/2018 | pm | 27.1 | 27.6 | 27.2 | 31.9 | 32.3 | 31.5 | 31.7 | 31.4 | 31.9 | 27.6 | 26.8 | 27.3 |
| 6/21/2018 | pm | 27.5 | 27.4 | 27.4 | 32.3 | 31.4 | 32.2 | 32.4 | 31.3 | 31.8 | 27.4 | 26.9 | 27.5 |
| 6/21/2018 | pm | 26.7 | 27.3 | 27.4 | 32.9 | 31.4 | 32.1 | 32.5 | 31.5 | 32.8 | 27.4 | 27.5 | 27.4 |
| 6/22/2018 | am | 27.1 | 27.1 | 27.1 | 31.8 | 31.5 | 32.4 | 31.5 | 32.1 | 32.6 | 26.9 | 27.2 | 27.5 |
| 6/22/2018 | am | 27.2 | 26.7 | 26.9 | 31.3 | 32.7 | 32.8 | 32.6 | 32.1 | 32.4 | 26.7 | 27.4 | 26.8 |
| 6/22/2018 | am | 27.4 | 27.4 | 27.4 | 31.7 | 31.6 | 32.4 | 32.8 | 32.8 | 32 | 26.7 | 27.1 | 27.1 |
| 6/22/2018 | Noon | 27.5 | 26.7 | 27.6 | 32 | 32.5 | 31.8 | 32.4 | 31.3 | 32.7 | 27.5 | 26.9 | 27.6 |
| 6/22/2018 | pm | 27.3 | 27.4 | 27.5 | 32.5 | 33 | 32.4 | 31.6 | 32.6 | 32.4 | 27.3 | 27.4 | 27.4 |
| 6/22/2018 | pm | 26.9 | 27.2 | 27.2 | 32 | 32.4 | 32.5 | 32 | 32.2 | 32.7 | 27.3 | 27.3 | 26.9 |
| 6/22/2018 | pm | 27.1 | 26.8 | 26.8 | 32.3 | 31.4 | 31.5 | 31.3 | 31.3 | 32.3 | 27.2 | 27.1 | 27.1 |
| 6/23/2018 | am | 27.6 | 26.9 | 26.8 | 32.9 | 31.6 | 31.8 | 31.7 | 32.4 | 32.6 | 26.7 | 27.1 | 26.7 |

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|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 6/23/2018 | am | 26.7 | 26.8 | 27.3 | 31.4 | 32.7 | 32.8 | 32.4 | 31.8 | 31.8 | 27 | 27.1 | 27.5 |
| 6/23/2018 | am | 26.9 | 26.9 | 27 | 31.3 | 31.6 | 32.1 | 31.6 | 31.5 | 31.5 | 27.4 | 27.4 | 27.2 |
| 6/23/2018 | Noon | 27.3 | 27 | 26.7 | 32.1 | 32.7 | 32.1 | 32.1 | 32.4 | 31.3 | 27 | 27.1 | 26.8 |
| 6/23/2018 | pm | 26.8 | 27 | 27.4 | 31.9 | 32.3 | 32.1 | 31.4 | 32.6 | 32.3 | 26.9 | 27.6 | 27.3 |
| 6/23/2018 | pm | 26.8 | 27.5 | 27 | 32.8 | 31.4 | 31.5 | 32.1 | 31.3 | 31.8 | 26.7 | 27.3 | 27 |
| 6/23/2018 | pm | 26.8 | 27.1 | 26.9 | 32.2 | 31.8 | 31.8 | 32.1 | 32.2 | 32.3 | 27 | 27.5 | 27 |
| 6/24/2018 | am | 26.7 | 27.3 | 27.5 | 32 | 32.9 | 32.3 | 31.8 | 32 | 32.3 | 26.8 | 27.5 | 27 |
| 6/24/2018 | am | 26.7 | 27.5 | 27.4 | 31.6 | 31.8 | 31.4 | 32.8 | 32.1 | 32.4 | 26.9 | 27 | 26.8 |
| 6/24/2018 | am | 26.8 | 27 | 26.7 | 32.5 | 31.8 | 31.9 | 32.9 | 32.6 | 32.5 | 27.4 | 27.4 | 27.6 |
| 6/24/2018 | Noon | 27.2 | 27.1 | 26.7 | 32.4 | 32.1 | 32 | 31.4 | 31.3 | 31.4 | 26.9 | 27 | 26.7 |
| 6/24/2018 | pm | 27.6 | 27.5 | 26.8 | 31.4 | 31.6 | 32 | 32.2 | 31.7 | 32.3 | 27 | 26.7 | 27.5 |
| 6/24/2018 | pm | 26.8 | 26.7 | 27.6 | 31.5 | 31.7 | 31.3 | 32.1 | 32.2 | 32.1 | 26.9 | 27.2 | 27.3 |
| 6/24/2018 | pm | 27.3 | 27 | 27.4 | 31.8 | 31.3 | 32.6 | 32.2 | 32.5 | 31.8 | 27.1 | 27.4 | 27.2 |

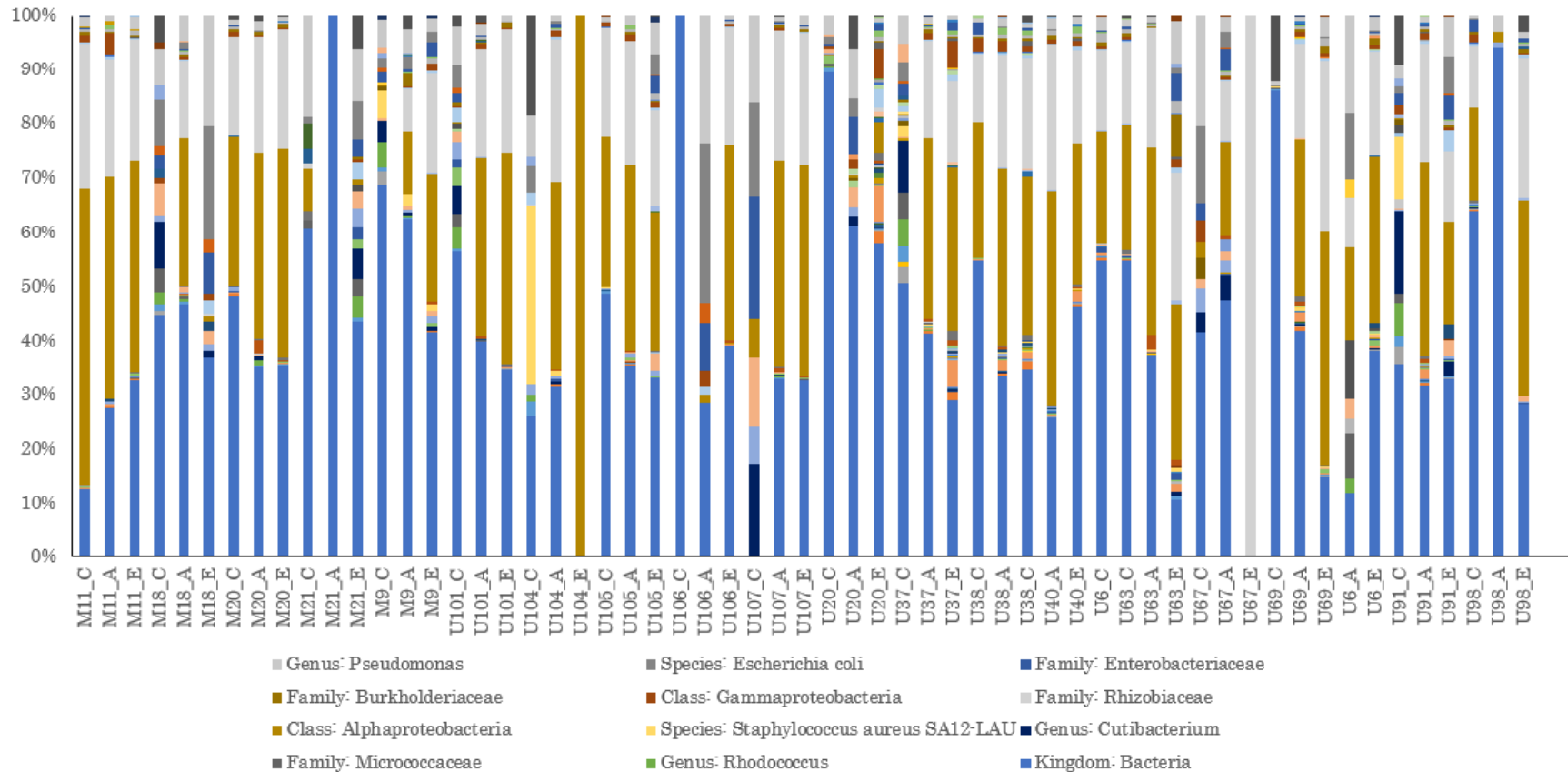


Figure S1. The relative abundance of species of Symbiodiniaceae found among coral fragments of different genotypes and experimental treatments. Each column represents the community found in one coral ramet. The genotype ID of each is shown on the X-axis, where the genotype codes are followed by a letter designating the treatment; C for Control (initial), A for ambient acclimation, and E for elevated acclimation. Symbiodiniaceae composition is depicted in different colors as shown in the legend.

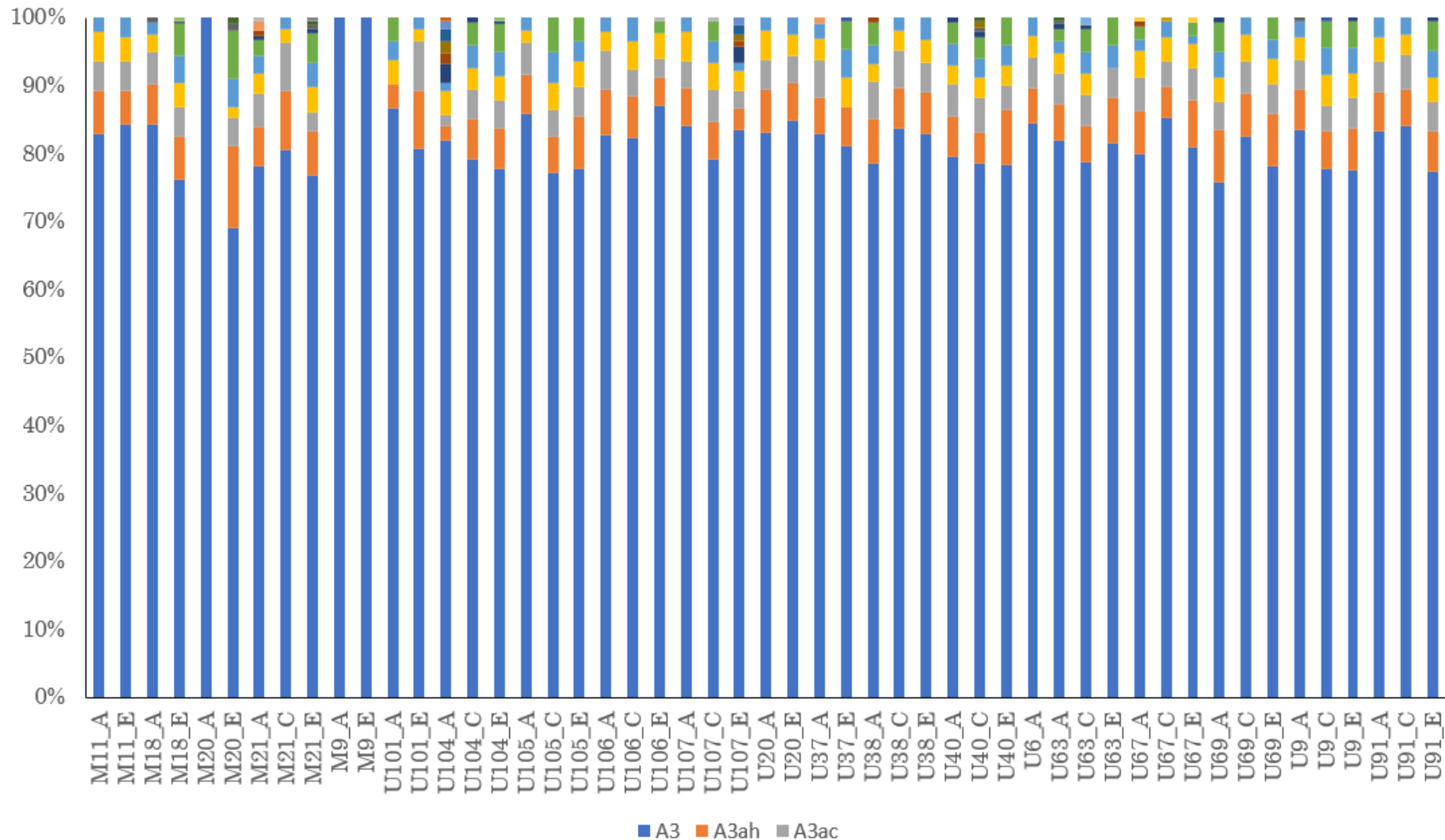


Figure S2. The relative abundance of bacterial taxa (ASVs) found among coral fragments of different genotypes and experimental treatments. Each column represents the bacterial community found in a single coral ramet. The genotype ID of each is shown on the X-axis, where the genotype codes are followed by a letter designating the treatment; C for Control (initial), A for ambient acclimation, and E for elevated acclimation. Color coding of the bacterial taxa is provided in the legend.