**Table S1. Microbial analysis mapping file after filtering.** OTUs were filtered from the dataset if they 1) failed to align with PyNAST to the GreenGenes database, 2) were annotated as mitochondrial or chloroplast sequences, or 3) had less than 100 counts across the entire dataset. Next, samples with less than 1000 reads were discarded (grey-colored sample rows).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SampleID** | **Tank** | **Nutrient** | **Temperature** | **Scarring** | **Colony** | **Treatment** | **Stress** | **Seq Depth** |
| m.ch.15 | D | Control | Control | Control | C5 | Control | none | 12930 |
| m.ch.14 | D | Control | Control | Control | C4 | Control | none | 40274 |
| m.ch.11 | D | Control | Control | Control | C1 | Control | none | 73948 |
| m.ch.19 | L | Control | Control | Control | C9 | Control | none | 4 |
| m.ch.18 | L | Control | Control | Control | C8 | Control | none | 11320 |
| m.ch.17 | L | Control | Control | Control | C7 | Control | none | 24526 |
| m.ch.35 | F | Control | High T | Control | C5 | High T | single | 250 |
| m.ch.34 | F | Control | High T | Control | C4 | High T | single | 22203 |
| m.ch.31 | F | Control | High T | Control | C1 | High T | single | 64340 |
| m.ch.39 | G | Control | High T | Control | C9 | High T | single | 585 |
| m.ch.38 | G | Control | High T | Control | C8 | High T | single | 4562 |
| m.ch.37 | G | Control | High T | Control | C7 | High T | single | 7570 |
| m.ch.21 | F | Control | High T | Scarred | C4 | High T, scarred | double | 5 |
| m.ch.24 | F | Control | High T | Scarred | C4 | High T, scarred | double | 8192 |
| m.ch.25 | F | Control | High T | Scarred | C5 | High T, scarred | double | 17118 |
| m.ch.27 | G | Control | High T | Scarred | C7 | High T, scarred | double | 1501 |
| m.ch.28 | G | Control | High T | Scarred | C8 | High T, scarred | double | 3083 |
| m.ch.29 | G | Control | High T | Scarred | C9 | High T, scarred | double | 26644 |
| m.ch.95 | E | NH4+ | Control | Control | C5 | NH4+ | single | 4602 |
| m.ch.94 | E | NH4+ | Control | Control | C4 | NH4+ | single | 24321 |
| m.ch.91 | E | NH4+ | Control | Control | C1 | NH4+ | single | 52777 |
| m.ch.98 | K | NH4+ | Control | Control | C8 | NH4+ | single | 8199 |
| m.ch.99 | K | NH4+ | Control | Control | C9 | NH4+ | single | 21860 |
| m.ch.97 | K | NH4+ | Control | Control | C7 | NH4+ | single | 24625 |
| m.ch.111 | C | NH4+ | High T | Control | C1 | NH4+, High T | double | 86 |
| m.ch.115 | C | NH4+ | High T | Control | C5 | NH4+, High T | double | 2859 |
| m.ch.114 | C | NH4+ | High T | Control | C4 | NH4+, High T | double | 7614 |
| m.ch.117 | J | NH4+ | High T | Control | C7 | NH4+, High T | double | 1 |
| m.ch.118 | J | NH4+ | High T | Control | C8 | NH4+, High T | double | 2151 |
| m.ch.119 | J | NH4+ | High T | Control | C9 | NH4+, High T | double | 5455 |
| m.ch.105 | C | NH4+ | High T | Scarred | C5 | NH4+, High T, scarred | triple | 1616 |
| m.ch.101 | C | NH4+ | High T | Scarred | C1 | NH4+, High T, scarred | triple | 17469 |
| m.ch.104 | C | NH4+ | High T | Scarred | C4 | NH4+, High T, scarred | triple | 20733 |
| m.ch.107 | J | NH4+ | High T | Scarred | C7 | NH4+, High T, scarred | triple | 4 |
| m.ch.108 | J | NH4+ | High T | Scarred | C8 | NH4+, High T, scarred | triple | 1962 |
| m.ch.109 | J | NH4+ | High T | Scarred | C9 | NH4+, High T, scarred | triple | 15391 |
| m.ch.84 | E | NH4+ | Control | Scarred | C4 | NH4+, scarred | double | 3058 |
| m.ch.85 | E | NH4+ | Control | Scarred | C5 | NH4+, scarred | double | 10134 |
| m.ch.81 | E | NH4+ | Control | Scarred | C1 | NH4+, scarred | double | 32454 |
| m.ch.89 | K | NH4+ | Control | Scarred | C9 | NH4+, scarred | double | 1691 |
| m.ch.88 | K | NH4+ | Control | Scarred | C8 | NH4+, scarred | double | 8458 |
| m.ch.87 | K | NH4+ | Control | Scarred | C7 | NH4+, scarred | double | 31459 |
| m.ch.54 | A | NO3- | Control | Control | C4 | NO3- | single | 8 |
| m.ch.55 | A | NO3- | Control | Control | C5 | NO3- | single | 4442 |
| m.ch.51 | A | NO3- | Control | Control | C1 | NO3- | single | 43207 |
| m.ch.57 | H | NO3- | Control | Control | C7 | NO3- | single | 13249 |
| m.ch.59 | H | NO3- | Control | Control | C9 | NO3- | single | 26058 |
| m.ch.58 | H | NO3- | Control | Control | C8 | NO3- | single | 27945 |
| m.ch.71 | B | NO3- | High T | Control | C1 | NO3-, High T | double | 0 |
| m.ch.74 | B | NO3- | High T | Control | C4 | NO3-, High T | double | 9623 |
| m.ch.75 | B | NO3- | High T | Control | C5 | NO3-, High T | double | 30273 |
| m.ch.79 | I | NO3- | High T | Control | C9 | NO3-, High T | double | 1070 |
| m.ch.77 | I | NO3- | High T | Control | C7 | NO3-, High T | double | 1139 |
| m.ch.78 | I | NO3- | High T | Control | C8 | NO3-, High T | double | 9360 |
| m.ch.61 | B | NO3- | High T | Scarred | C1 | NO3-, High T, scarred | triple | 5912 |
| m.ch.65 | B | NO3- | High T | Scarred | C5 | NO3-, High T, scarred | triple | 7723 |
| m.ch.64 | B | NO3- | High T | Scarred | C4 | NO3-, High T, scarred | triple | 10287 |
| m.ch.68 | I | NO3- | High T | Scarred | C8 | NO3-, High T, scarred | triple | 2 |
| m.ch.69 | I | NO3- | High T | Scarred | C9 | NO3-, High T, scarred | triple | 17725 |
| m.ch.67 | I | NO3- | High T | Scarred | C7 | NO3-, High T, scarred | triple | 23411 |
| m.ch.44 | A | NO3- | Control | Scarred | C4 | NO3-, scarred | double | 4904 |
| m.ch.45 | A | NO3- | Control | Scarred | C5 | NO3-, scarred | double | 21913 |
| m.ch.41 | A | NO3- | Control | Scarred | C1 | NO3-, scarred | double | 83601 |
| m.ch.47 | H | NO3- | Control | Scarred | C7 | NO3-, scarred | double | 9385 |
| m.ch.48 | H | NO3- | Control | Scarred | C8 | NO3-, scarred | double | 10564 |
| m.ch.49 | H | NO3- | Control | Scarred | C9 | NO3-, scarred | double | 15834 |
| m.ch.4 | D | Control | Control | Scarred | C4 | Scarred | single | 2334 |
| m.ch.1 | D | Control | Control | Scarred | C1 | Scarred | single | 5642 |
| m.ch.5 | D | Control | Control | Scarred | C5 | Scarred | single | 9368 |
| m.ch.9 | L | Control | Control | Scarred | C9 | Scarred | single | 3509 |
| m.ch.7 | L | Control | Control | Scarred | C7 | Scarred | single | 32292 |
| m.ch.8 | L | Control | Control | Scarred | C8 | Scarred | single | 59707 |