

Supplementary Material

A comparative analysis of microbial DNA preparation methods for use with massive and branching coral growth forms

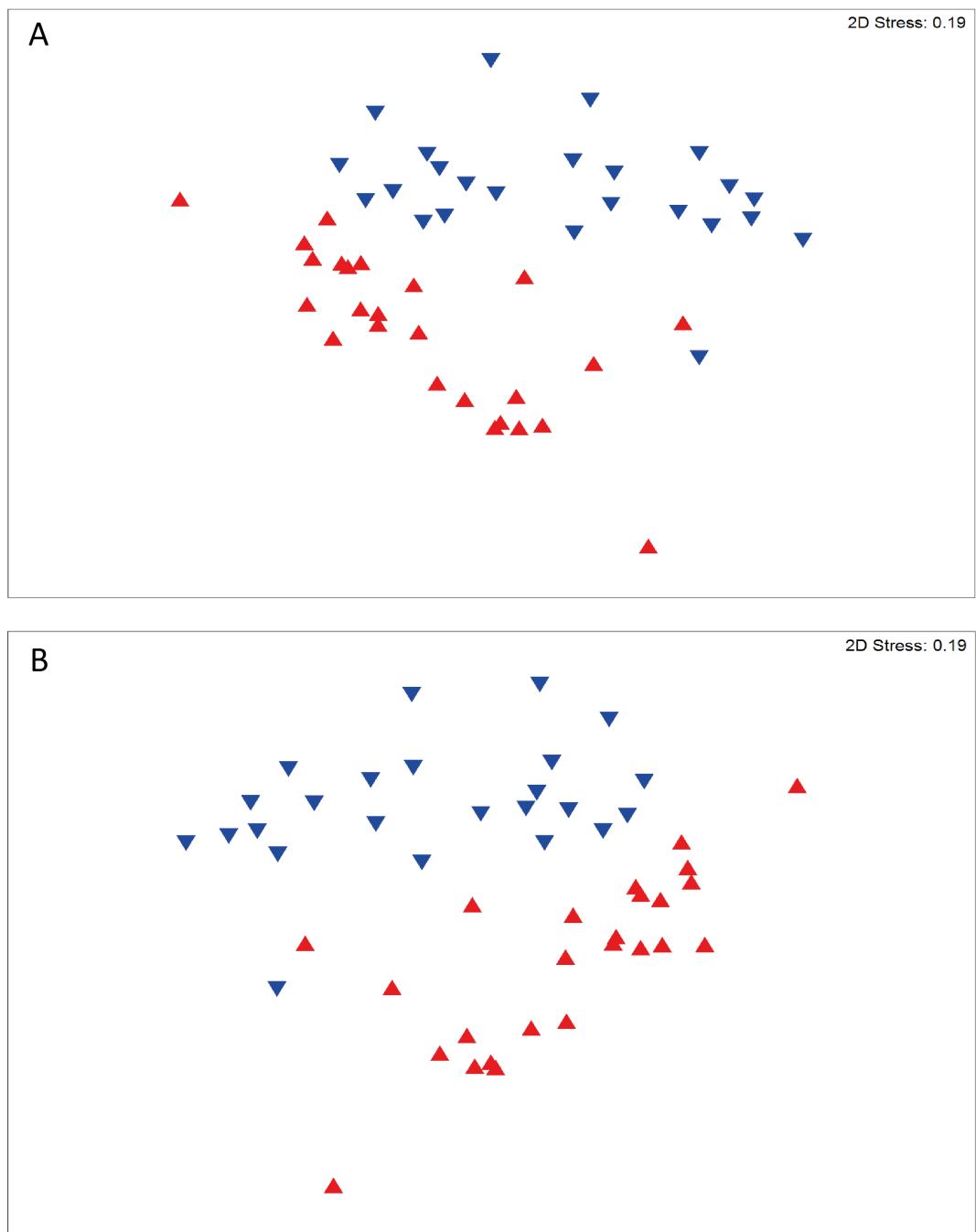
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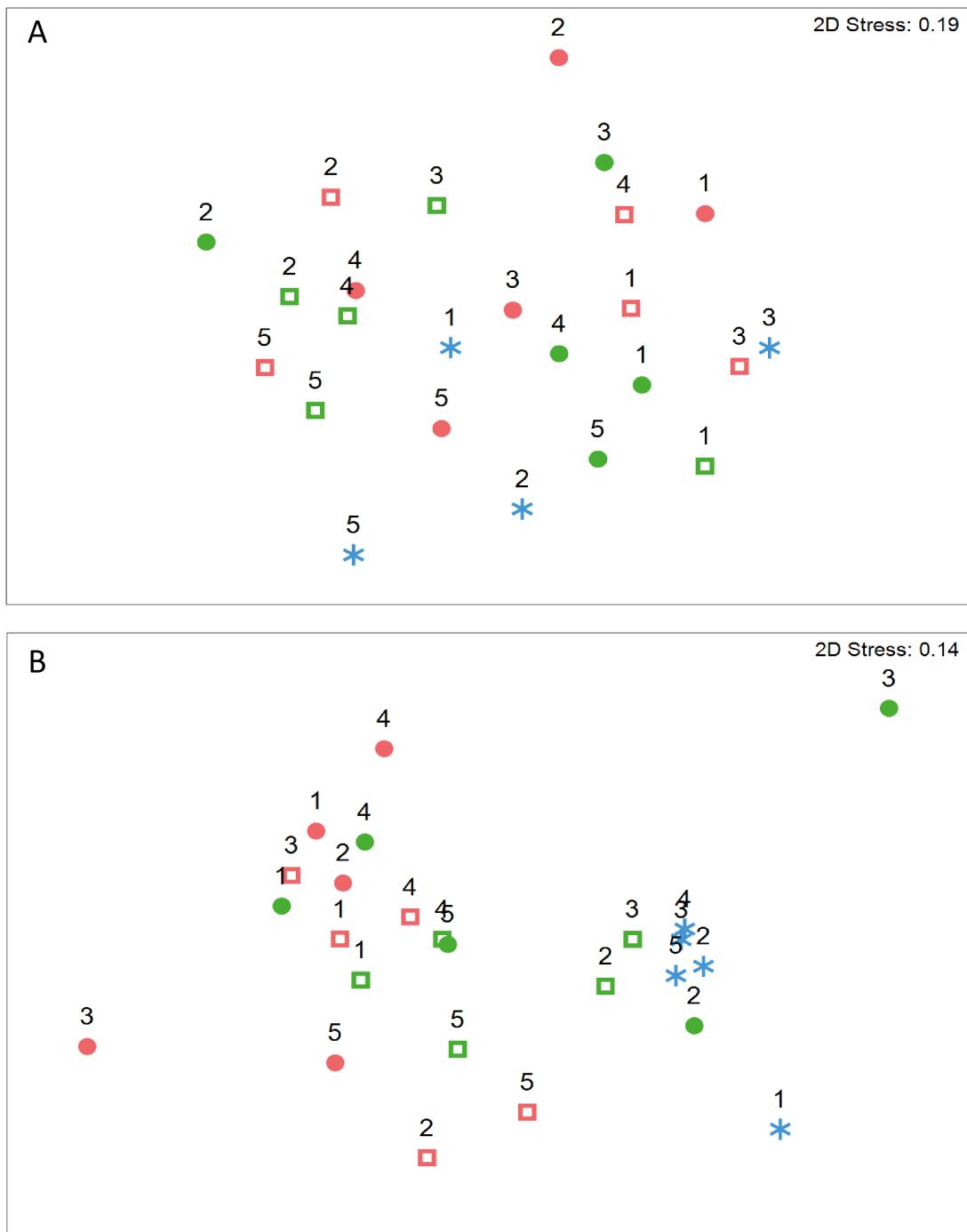
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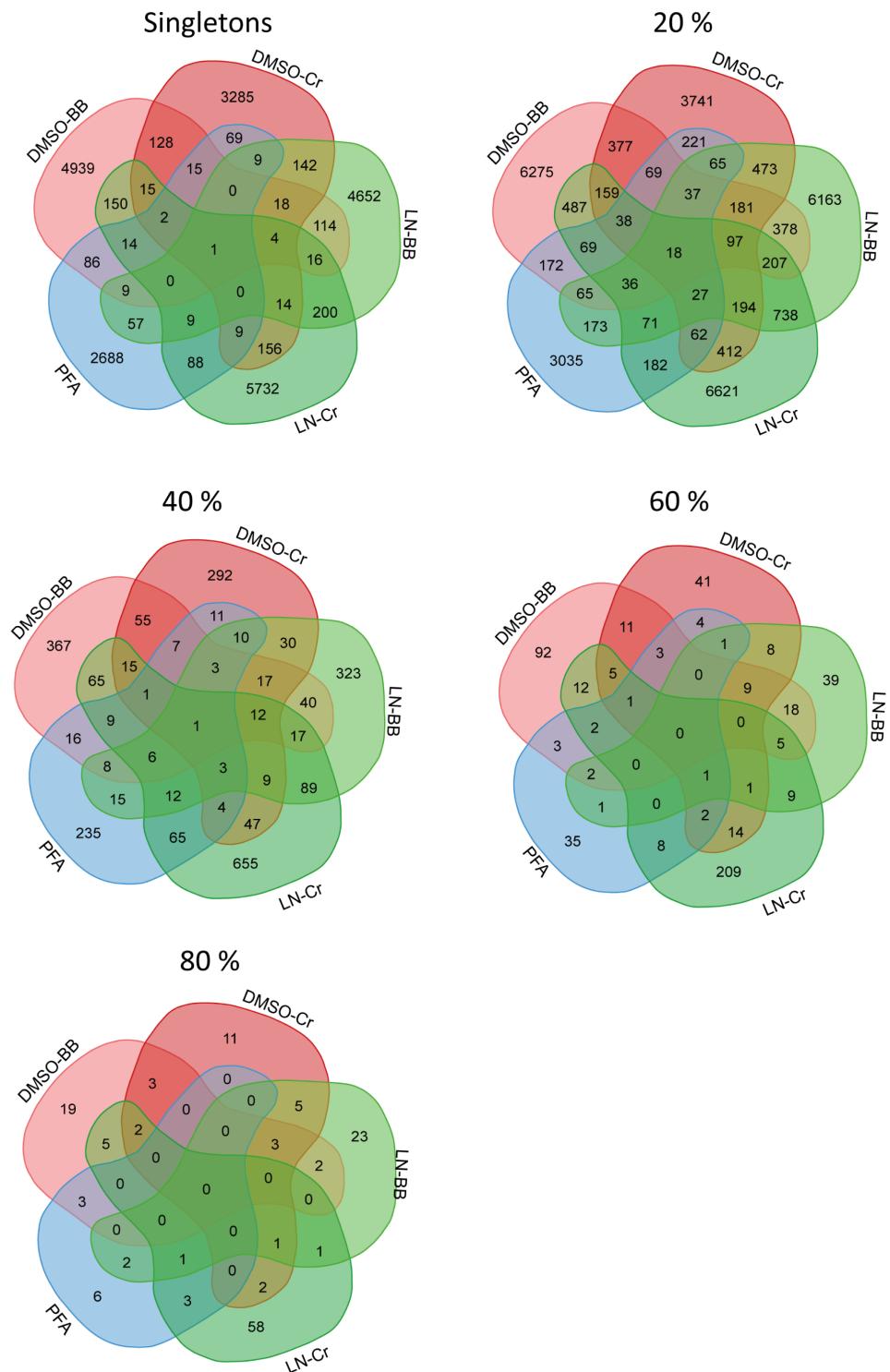
1.1 Supplementary Figures



Supplementary Figure 1. Bacterial communities are different between coral species. Non-metric MDS based on relative abundance (A) and presence/absence data (B). nMDS are based on Bray-Curtis dissimilarity of fourth root transformed data (A) and Sorensen dissimilarity (B). Bacterial assemblage structure is different among coral species. Blue: *G. edwardsi*, red: *I. palifera*. Statistical analysis in Supp. Table 3, 4.

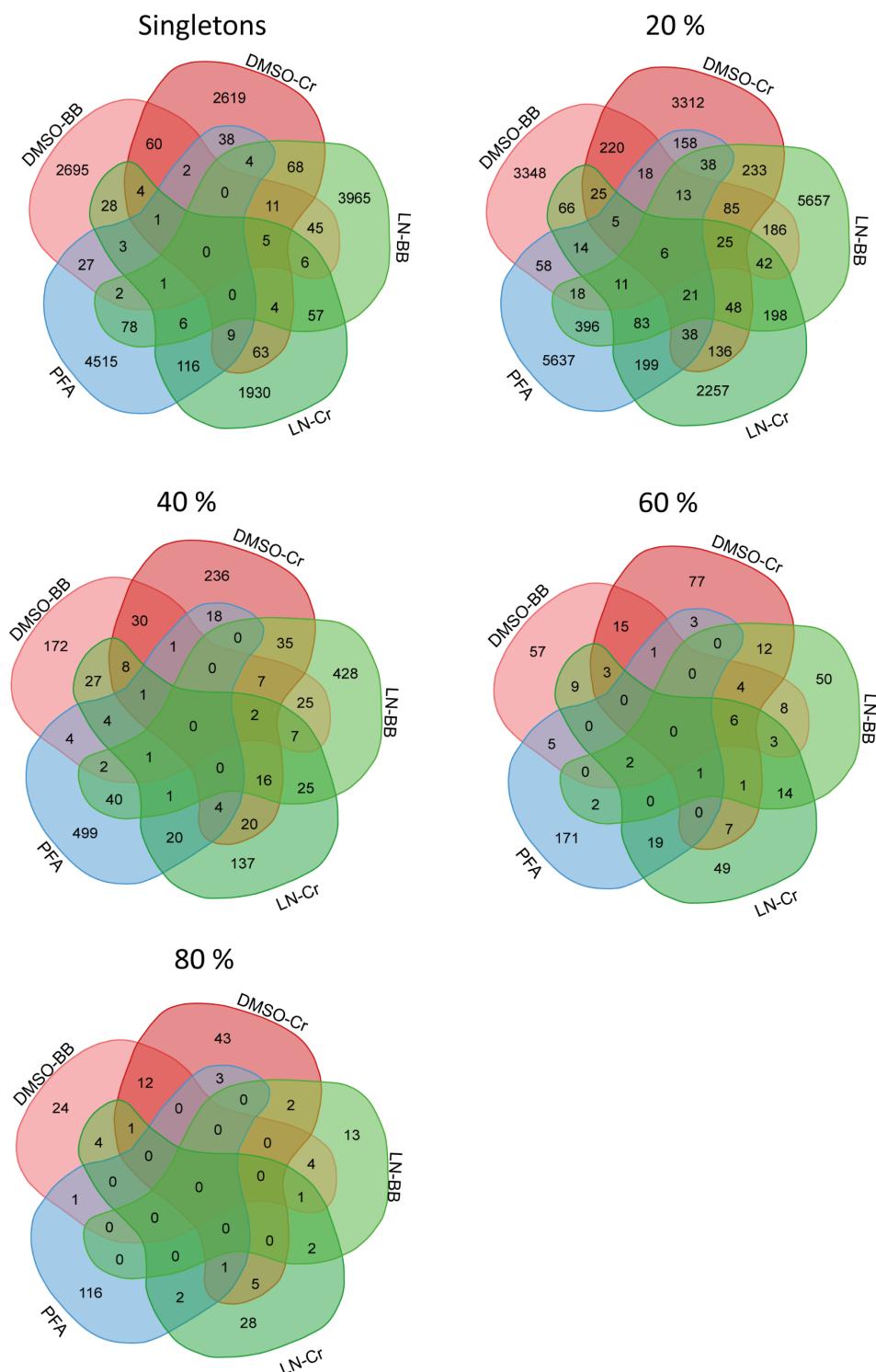


Supplementary Figure 2. Non-metric MDS based on presence/absence data for *G. edwardsi* (A) and *I. palifera* (B). No differences are observed in the composition of *G. edwardsi*. For *I. palifera*, there are differences in composition between fragments treated with PFA-decalcification (blue stars) and fragments preserved with DMSO, regardless the homogenization method. nMDS are based on Sorenson dissimilarity. Green: Liquid nitrogen, red: DMSO, blue: PFA, circles: bead beating, squares: crushing. Colonies indicated with numbers. Supporting analyses in Supp. Table 6, 8, 10, 12.



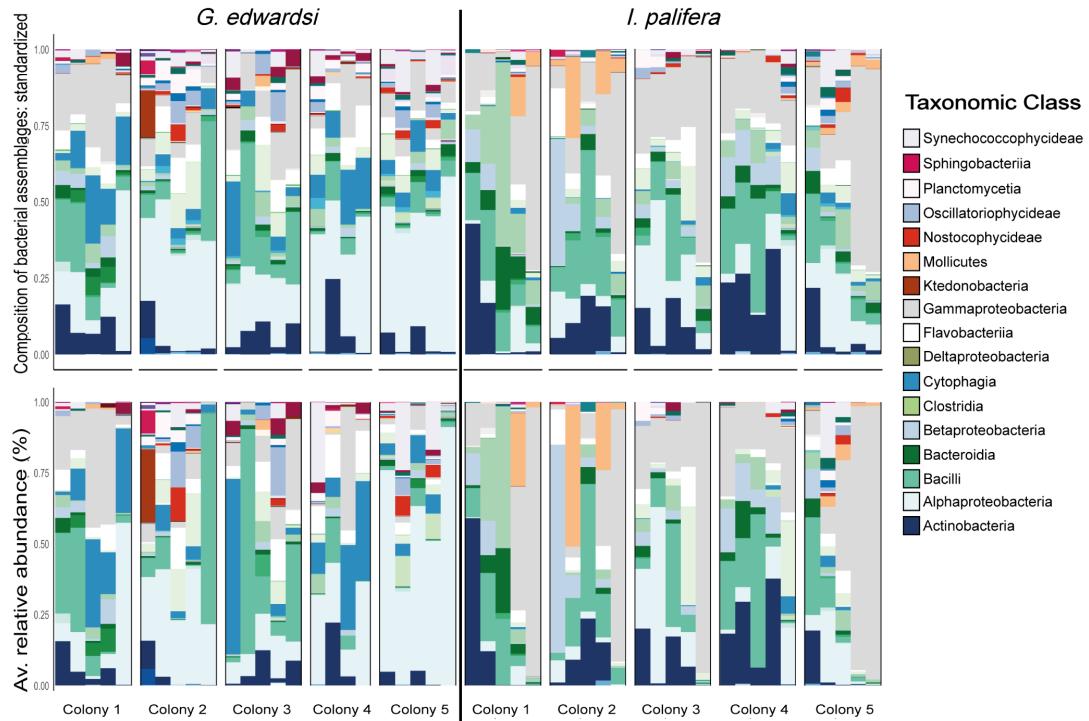
Supplementary Figure 3. Venn diagram for singletons and bacterial assemblages persistent at 20, 40, 60, 80% of the samples of each methodology considered for preservation and homogenization in *G. edwardsi*. Bacterial phylotypes analyzed at different percentages of persistence seems to show distinct bacterial assemblages, since the number of phylotypes detected by only one combination of preservation and homogenization method is superior to those shared between distinct methods. However, analyses of the structure of bacterial assemblages (Figure 3A) demonstrate that there are no differences and there are common phylotypes among methods, but

their persistence and relative abundance vary among preservation and homogenization treatments (Figure 4A, C, E, G, I).

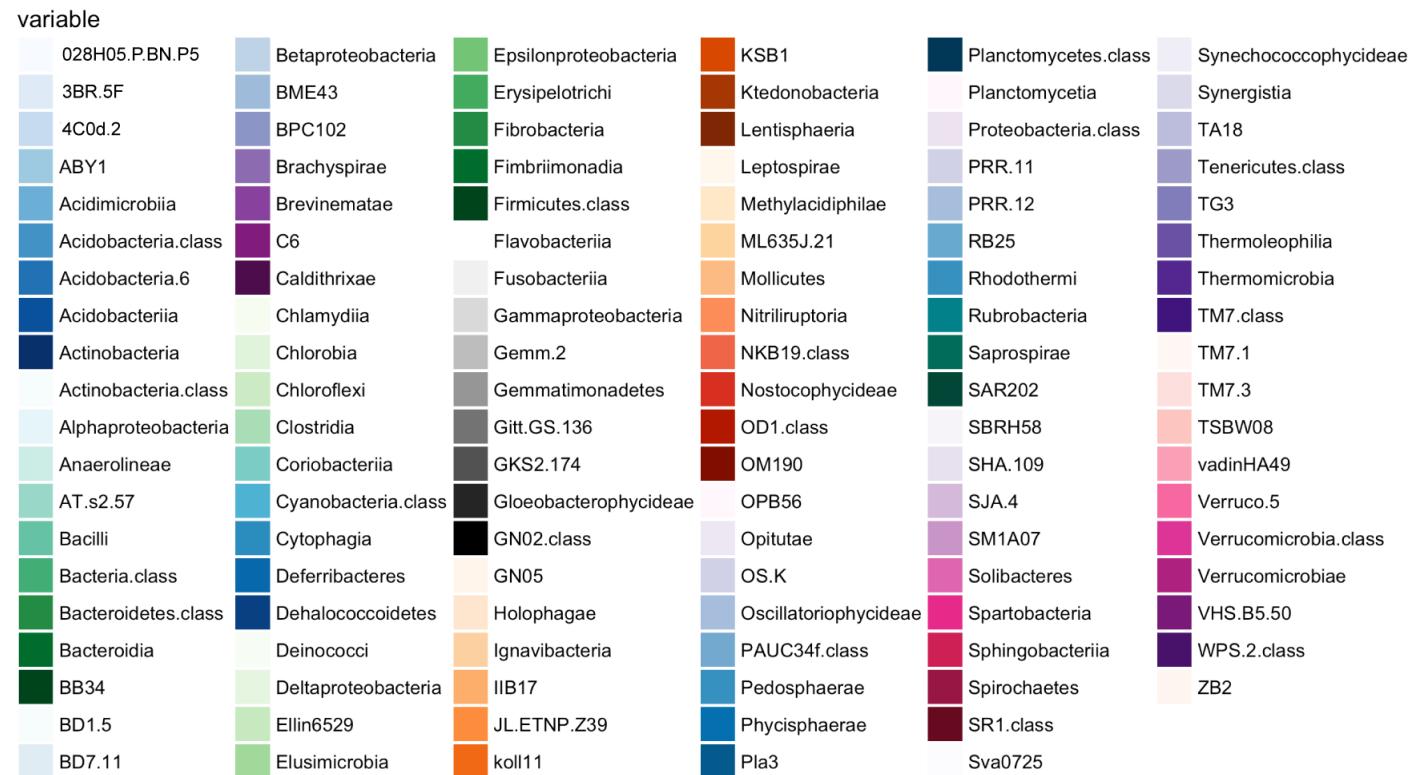


Supplementary Figure 4. Venn diagram for singletons and bacterial assemblages persistent at 20, 40, 60, 80% of the samples of each methodology considered for preservation and homogenization in *I. palifera*. As observed in *G. edwardsii* (previous image) analysis of bacterial phylotypes considering different percentages of persistence indicate distinct bacterial assemblages. However, community structure

analysis only detected differences between PFA-decalcified and both homogenization treatments preserved in DMSO (Figure 3B). All the preservation methods have phylotypes in common, but they are differentiated by low occurrence, low abundance phylotypes (Figure 4B, D, F, H, J).



Supplementary Figure 5. Variation of taxonomic composition (top) and structure (bottom) among preservation and homogenization methods by colony. There is a high variability across colonies in taxonomic composition and structure. Analyzing each colony individually, the comparison among preservation and homogenization methods shows a consistent composition among them for *G. edwardsi* (top left) despite patterns in the structure (bottom left) are not. For *I. palifera*, patterns in taxonomic composition and structure differ among colonies, but colonies 3-5 show consistency in dominant classes among preservation and homogenization methods (top and bottom right). For each colony, columns are ordered as follows: DMSO-Bead beating, DMSO-crushing, LN-Bead beating, LN-crushing, PFA-decalcification. Major taxonomic classes are presented in the legend, for complete legend see Supp. Figure 6.



Supplementary Figure 6 – Legend of all taxonomic classes considered in Figure 6 and Supp. Figure 5.

1.2 Supplementary Tables

Supplementary Table 1. Permutational analysis of variance (univariate PERMANOVA) on diversity indices for *G. edwardsi* microbiome. The test is based on Euclidean distances, performed using 9,999 permutations to compare Preservation and Homogenization methods. A) Fully crossed design Preservation (Pr; DMSO and LN) x Homogenization (Ho; BB and Cr). B) Comparison between PFA versus the other preservation and homogenization methods. Bonferroni *p*-value for four comparisons 0.0125. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

Richness (d) - Margalef's index

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|----------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 7707.1 | 7707.1 | 0.36539 | 0.5844 | 9875 | 0.5526 | 0 |
| Homogenization (Ho) | 1 | 1.0604 | 1.0604 | 5.03E-05 | 0.9948 | 9856 | 0.9938 | 0 |
| PrxHo | 1 | 9845.5 | 9845.5 | 0.46677 | 0.5165 | 9813 | 0.5075 | 0 |
| Residual | 16 | 3.37E+05 | 21093 | | | | | 100 |
| Total | 19 | 3.55E+05 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|----------|--------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 11639 | 11639 | 3.379 | 0.0965 | 126 | 0.1088 | 42.3 |
| | Residual | 7 | 24112 | 3444.5 | | | | | 57.7 |
| | Total | 8 | 35750 | | | | | | |
| DMSO-Cr | Treatment | 1 | 1799.5 | 1799.5 | 0.33739 | 0.5899 | 126 | 0.5819 | 0 |
| | Residual | 7 | 37335 | 5333.6 | | | | | 100 |
| | Total | 8 | 39135 | | | | | | |
| LN-BB | Treatment | 1 | 10052 | 10052 | 0.34269 | 0.8945 | 126 | 0.5791 | 0 |
| | Residual | 7 | 2.05E+05 | 29334 | | | | | 100 |
| | Total | 8 | 2.15E+05 | | | | | | |
| LN-Cr | Treatment | 1 | 27921 | 27921 | 1.816 | 0.2222 | 126 | 0.2122 | 30.0 |
| | Residual | 7 | 1.08E+05 | 15375 | | | | | 70.0 |
| | Total | 8 | 1.36E+05 | | | | | | |

Diversity (H') - Shannon index

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|----------|----------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 0.030301 | 0.030301 | 0.025459 | 0.8758 | 9866 | 0.8733 | 0.0 |
| Homogenization (Ho) | 1 | 1.3743 | 1.3743 | 1.1546 | 0.2971 | 9847 | 0.2998 | 11.1 |
| PrxHo | 1 | 0.35677 | 0.35677 | 0.29976 | 0.5862 | 9831 | 0.5929 | 0.0 |
| Residual | 16 | 19.043 | 1.1902 | | | | | 88.9 |
| Total | 19 | 20.805 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|--------|---------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 3.6559 | 3.6559 | 5.5533 | 0.0594 | 126 | 0.0498 | 50.3 |
| | Residual | 7 | 4.6083 | 0.65833 | | | | | 49.7 |
| | Total | 8 | 8.2642 | | | | | | |
| DMSO-Cr | Treatment | 1 | 5.2687 | 5.2687 | 4.0689 | 0.0859 | 126 | 0.0838 | 45.4 |
| | Residual | 7 | 9.064 | 1.2949 | | | | | 54.6 |
| | Total | 8 | 14.333 | | | | | | |
| LN-BB | Treatment | 1 | 1.9538 | 1.9538 | 1.66 | 0.2475 | 126 | 0.2428 | 27.8 |
| | Residual | 7 | 8.2391 | 1.177 | | | | | 72.2 |
| | Total | 8 | 10.193 | | | | | | |
| LN-Cr | Treatment | 1 | 6.6436 | 6.6436 | 6.6373 | 0.0493 | 126 | 0.0363 | 53.0 |
| | Residual | 7 | 7.0067 | 1.001 | | | | | 47.0 |
| | Total | 8 | 13.65 | | | | | | |

Evenness (J') - Pielou's evenness

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|-----------|-----------|-----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 3.73E-05 | 3.73E-05 | 0.0026071 | 0.9584 | 9852 | 0.9637 | 0.0 |
| Homogenization (Ho) | 1 | 0.031505 | 0.031505 | 2.205 | 0.1576 | 9843 | 0.1547 | 25.8 |
| PrxHo | 1 | 0.0019043 | 0.0019043 | 0.13327 | 0.7188 | 9840 | 0.7164 | 0.0 |
| Residual | 16 | 0.22861 | 0.014288 | | | | | 74.2 |
| Total | 19 | 0.26206 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|----------|----------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 0.038439 | 0.038439 | 2.5346 | 0.1488 | 126 | 0.1556 | 37.0 |
| | Residual | 7 | 0.10616 | 0.015165 | | | | | 63.0 |
| | Total | 8 | 0.1446 | | | | | | |
| DMSO-Cr | Treatment | 1 | 0.081394 | 0.081394 | 3.7255 | 0.1017 | 126 | 0.0928 | 43.9 |
| | Residual | 7 | 0.15293 | 0.021848 | | | | | 56.1 |
| | Total | 8 | 0.23433 | | | | | | |
| LN-BB | Treatment | 1 | 0.026535 | 0.026535 | 1.6316 | 0.2368 | 126 | 0.2375 | 27.4 |
| | Residual | 7 | 0.11384 | 0.016264 | | | | | 72.6 |
| | Total | 8 | 0.14038 | | | | | | |
| LN-Cr | Treatment | 1 | 0.096299 | 0.096299 | 4.6292 | 0.0972 | 126 | 0.0635 | 47.5 |
| | Residual | 7 | 0.14562 | 0.020802 | | | | | 52.5 |
| | Total | 8 | 0.24192 | | | | | | |

Av. Tax. Distinctness (Δ^+) - Average of taxonomic distinctness

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|----------|----------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 8.97E-05 | 8.97E-05 | 6.40E-05 | 0.9927 | 9810 | 0.9929 | 0 |
| Homogenization (Ho) | 1 | 0.4404 | 0.4404 | 0.3146 | 0.5837 | 9838 | 0.5729 | 0 |
| PrxHo | 1 | 1.1805 | 1.1805 | 0.84326 | 0.3698 | 9832 | 0.3707 | 0 |
| Residual | 16 | 22.398 | 1.3999 | | | | | 100 |
| Total | 19 | 24.019 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|----------|----------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 1.7171 | 1.7171 | 3.3572 | 0.0907 | 126 | 0.1069 | 42.1 |
| | Residual | 7 | 3.5802 | 0.51146 | | | | | 57.9 |
| | Total | 8 | 5.2973 | | | | | | |
| DMSO-Cr | Treatment | 1 | 0.020627 | 0.020627 | 0.012827 | 0.8747 | 126 | 0.9109 | 0 |
| | Residual | 7 | 11.257 | 1.6081 | | | | | 100 |
| | Total | 8 | 11.277 | | | | | | |
| LN-BB | Treatment | 1 | 0.33608 | 0.33608 | 0.29218 | 0.5947 | 126 | 0.6027 | 0 |
| | Residual | 7 | 8.0519 | 1.1503 | | | | | 100 |
| | Total | 8 | 8.388 | | | | | | |
| LN-Cr | Treatment | 1 | 0.74242 | 0.74242 | 0.39932 | 0.4819 | 126 | 0.5456 | 0 |
| | Residual | 7 | 13.015 | 1.8592 | | | | | 100 |
| | Total | 8 | 13.757 | | | | | | |

Var. Tax. Distinctness (Λ^+) - Variation of taxonomic distinctness

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|--------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 241.96 | 241.96 | 0.48465 | 0.4909 | 9812 | 0.5047 | 0.0 |
| Homogenization (Ho) | 1 | 437.36 | 437.36 | 0.87606 | 0.3648 | 9829 | 0.3596 | 0.0 |
| PrxHo | 1 | 763.72 | 763.72 | 1.5298 | 0.2304 | 9823 | 0.2414 | 24.6 |
| Residual | 16 | 7987.7 | 499.23 | | | | | 75.4 |
| Total | 19 | 9430.8 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|--------|--------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 313.89 | 313.89 | 0.96318 | 0.3605 | 126 | 0.3598 | 0 |
| | Residual | 7 | 2281.2 | 325.89 | | | | | 100 |
| | Total | 8 | 2595.1 | | | | | | |
| DMSO-Cr | Treatment | 1 | 214.59 | 214.59 | 0.33527 | 0.5874 | 126 | 0.5792 | 0 |
| | Residual | 7 | 4480.3 | 640.05 | | | | | 100 |
| | Total | 8 | 4694.9 | | | | | | |
| LN-BB | Treatment | 1 | 93.378 | 93.378 | 0.22052 | 0.7485 | 126 | 0.6559 | 0 |
| | Residual | 7 | 2964.1 | 423.44 | | | | | 100 |
| | Total | 8 | 3057.5 | | | | | | |
| LN-Cr | Treatment | 1 | 200.07 | 200.07 | 0.2184 | 0.6196 | 126 | 0.6591 | 0 |
| | Residual | 7 | 6412.6 | 916.08 | | | | | 100 |
| | Total | 8 | 6612.7 | | | | | | |

Supplementary Table 2. Permutational analysis of variance (univariate PERMANOVA) on diversity indices for *I. palifera* microbiome. The test is based on Euclidean distances, performed using 9,999 permutations to compare Preservation and Homogenization methods. A) Fully crossed design Preservation (Pr; DMSO and LN) x Homogenization (Ho; BB and Cr). B) Comparison between PFA versus the other preservation and homogenization methods. Bonferroni *p*-value for four comparisons 0.0125. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

Richness (d) - Margalef's index

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|--------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 1185 | 1185 | 0.24861 | 0.7223 | 9898 | 0.6275 | 0.0 |
| Homogenization (Ho) | 1 | 4438.2 | 4438.2 | 0.93111 | 0.4012 | 9904 | 0.3549 | 0.0 |
| PrxHo | 1 | 9507.2 | 9507.2 | 1.9946 | 0.1735 | 9884 | 0.1807 | 30.8 |
| Residual | 16 | 76264 | 4766.5 | | | | | 69.2 |
| Total | 19 | 91395 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|--------|--------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 11593 | 11593 | 2.1292 | 0.2086 | 126 | 0.1821 | 32.2 |
| | Residual | 8 | 43559 | 5444.9 | | | | | 67.8 |
| | Total | 9 | 55152 | | | | | | |
| DMSO-Cr | Treatment | 1 | 476.95 | 476.95 | 0.30134 | 0.7079 | 126 | 0.5941 | 0 |
| | Residual | 8 | 12662 | 1582.7 | | | | | 100 |
| | Total | 9 | 13139 | | | | | | |
| LN-BB | Treatment | 1 | 206.91 | 206.91 | 0.017249 | 0.8089 | 126 | 0.8979 | 0 |
| | Residual | 8 | 95964 | 11995 | | | | | 100 |
| | Total | 9 | 96170 | | | | | | |
| LN-Cr | Treatment | 1 | 17014 | 17014 | 3.907 | 0.0164 | 126 | 0.0816 | 43.3 |
| | Residual | 8 | 34838 | 4354.8 | | | | | 56.7 |
| | Total | 9 | 51852 | | | | | | |

Diversity (H') - Shannon index

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|----------|----------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 0.024867 | 0.024867 | 0.035762 | 0.8618 | 9826 | 0.8474 | 0.0 |
| Homogenization (Ho) | 1 | 0.45239 | 0.45239 | 0.6506 | 0.4253 | 9826 | 0.4281 | 0.0 |
| PrxHo | 1 | 2.5886 | 2.5886 | 3.7228 | 0.07 | 9850 | 0.0699 | 42.5 |
| Residual | 16 | 11.125 | 0.69534 | | | | | 57.5 |
| Total | 19 | 14.191 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|--------|--------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 4.4183 | 4.4183 | 3.1336 | 0.1802 | 126 | 0.1116 | 39.5 |
| | Residual | 8 | 11.28 | 1.41 | | | | | 60.5 |
| | Total | 9 | 15.698 | | | | | | |
| DMSO-Cr | Treatment | 1 | 7.6399 | 7.6399 | 5.9756 | 0.0377 | 126 | 0.0407 | 49.9 |
| | Residual | 8 | 10.228 | 1.2785 | | | | | 50.1 |
| | Total | 9 | 17.868 | | | | | | |
| LN-BB | Treatment | 1 | 9.7852 | 9.7852 | 8.4138 | 0.0407 | 126 | 0.0226 | 54.9 |
| | Residual | 8 | 9.304 | 1.163 | | | | | 45.1 |
| | Total | 9 | 19.089 | | | | | | |
| LN-Cr | Treatment | 1 | 2.2948 | 2.2948 | 1.785 | 0.172 | 126 | 0.2162 | 28.4 |
| | Residual | 8 | 10.285 | 1.2856 | | | | | 71.6 |
| | Total | 9 | 12.58 | | | | | | |

Evenness (J') - Pielou's evenness

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|-----------|-----------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 0.0046901 | 0.0046901 | 0.31462 | 0.5915 | 9823 | 0.5837 | 0.0 |
| Homogenization (Ho) | 1 | 0.011814 | 0.011814 | 0.79247 | 0.389 | 9816 | 0.3959 | 0.0 |
| PrxHo | 1 | 0.015485 | 0.015485 | 1.0388 | 0.3435 | 9845 | 0.3264 | 8.1 |
| Residual | 16 | 0.23852 | 0.014907 | | | | | 91.9 |
| Total | 19 | 0.27051 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|----------|----------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 0.17517 | 0.17517 | 6.5829 | 0.0156 | 126 | 0.0344 | 51.4 |
| | Residual | 8 | 0.21287 | 0.026609 | | | | | 48.6 |
| | Total | 9 | 0.38804 | | | | | | |
| DMSO-Cr | Treatment | 1 | 0.18461 | 0.18461 | 10.819 | 0.0312 | 126 | 0.0101 | 58.4 |
| | Residual | 8 | 0.13651 | 0.017064 | | | | | 41.6 |
| | Total | 9 | 0.32113 | | | | | | |
| LN-BB | Treatment | 1 | 0.20985 | 0.20985 | 16.221 | 0.0202 | 126 | 0.0037 | 63.6 |
| | Residual | 8 | 0.1035 | 0.012937 | | | | | 36.4 |
| | Total | 9 | 0.31335 | | | | | | |
| LN-Cr | Treatment | 1 | 0.085993 | 0.085993 | 4.0889 | 0.1044 | 126 | 0.0829 | 44.0 |
| | Residual | 8 | 0.16825 | 0.021031 | | | | | 56.0 |
| | Total | 9 | 0.25424 | | | | | | |

Av. Tax. Distinctness (Δ^+) - Average of taxonomic distinctness

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|---------|---------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 3.0033 | 3.0033 | 3.0136 | 0.1042 | 9842 | 0.1018 | 31.0 |
| Homogenization (Ho) | 1 | 0.6777 | 0.6777 | 0.68001 | 0.4194 | 9839 | 0.4228 | 0.0 |
| PrxHo | 1 | 0.20675 | 0.20675 | 0.20746 | 0.6444 | 9820 | 0.6543 | 0.0 |
| Residual | 16 | 15.946 | 0.9966 | | | | | 69.0 |
| Total | 19 | 19.833 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|---------|---------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 4.5375 | 4.5375 | 5.2746 | 0.0752 | 126 | 0.0524 | 48.0 |
| | Residual | 8 | 6.8821 | 0.86026 | | | | | 52.0 |
| | Total | 9 | 11.42 | | | | | | |
| DMSO-Cr | Treatment | 1 | 5.7156 | 5.7156 | 13.68 | 0.0073 | 126 | 0.0072 | 61.4 |
| | Residual | 8 | 3.3424 | 0.4178 | | | | | 38.6 |
| | Total | 9 | 9.058 | | | | | | |
| LN-BB | Treatment | 1 | 0.34012 | 0.34012 | 0.70347 | 0.4633 | 126 | 0.4263 | 0 |
| | Residual | 8 | 3.8679 | 0.48349 | | | | | 100 |
| | Total | 9 | 4.208 | | | | | | |
| LN-Cr | Treatment | 1 | 2.2106 | 2.2106 | 3.1303 | 0.1101 | 125 | 0.111 | 39.5 |
| | Residual | 8 | 5.6496 | 0.7062 | | | | | 60.5 |
| | Total | 9 | 7.8602 | | | | | | |

Var. Tax. Distinctness (Λ^+) - Variation of taxonomic distinctness

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|---------|---------|------------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 530.78 | 530.78 | 0.99775 | 0.3614 | 9856 | 0.3315 | 0 |
| Homogenization (Ho) | 1 | 329.4 | 329.4 | 0.61919 | 0.4686 | 9858 | 0.4407 | 0 |
| PrxHo | 1 | 0.29975 | 0.29975 | 0.00056347 | 0.9831 | 9854 | 0.9808 | 0 |
| Residual | 16 | 8511.6 | 531.98 | | | | | 100 |
| Total | 19 | 9372.1 | | | | | | |

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|--------|--------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 4435.6 | 4435.6 | 6.4742 | 0.0087 | 126 | 0.0347 | 51.1 |
| | Residual | 8 | 5481 | 685.13 | | | | | 48.9 |
| | Total | 9 | 9916.6 | | | | | | |
| DMSO-Cr | Treatment | 1 | 2932.7 | 2932.7 | 67.943 | 0.0077 | 126 | 0.0001 | 78.5 |
| | Residual | 8 | 345.31 | 43.164 | | | | | 21.5 |
| | Total | 9 | 3278 | | | | | | |
| LN-BB | Treatment | 1 | 2570.2 | 2570.2 | 13.759 | 0.0071 | 126 | 0.0059 | 61.5 |
| | Residual | 8 | 1494.3 | 186.79 | | | | | 38.5 |
| | Total | 9 | 4064.5 | | | | | | |
| LN-Cr | Treatment | 1 | 1404.5 | 1404.5 | 6.6064 | 0.0489 | 126 | 0.0358 | 51.4 |
| | Residual | 8 | 1700.7 | 212.59 | | | | | 48.6 |
| | Total | 9 | 3105.2 | | | | | | |

Supplementary Table 3. Permutational multivariate analysis of variance (PERMANOVA) for the relative abundance data based on Bray-Curtis dissimilarities. Test performed using 9,999 permutations. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|----------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 5179.7 | 5179.7 | 1.1766 | 0.2514 | 3 | 0.3333 | 6.19 |
| Homogenization (Ho) | 1 | 4083 | 4083 | 1.0305 | 0.2595 | 3 | 0.4714 | 2.44 |
| Coral species (Co) | 1 | 11077 | 11077 | 2.6999 | 0.0001 | 9834 | 0.0004 | 18.53 |
| PrxHo | 1 | 3991.9 | 3991.9 | 1.0396 | 0.2713 | 18 | 0.4726 | 3.87 |
| PrxCo | 1 | 4402.2 | 4402.2 | 1.073 | 0.2873 | 9814 | 0.3615 | 5.43 |
| HoxCo | 1 | 3962.1 | 3962.1 | 0.96571 | 0.5755 | 9792 | 0.5208 | 0.00 |
| PrxHoxCo | 1 | 3840 | 3840 | 0.93594 | 0.6585 | 9813 | 0.5547 | 0.00 |
| Residual | 32 | 1.31E+05 | 4102.8 | | | | | |
| Total | 39 | 1.68E+05 | | | | | | 63.55 |

Supplementary Table 4. Permutational multivariate analysis of variance (PERMANOVA) for the compositional (Presence/Absence) data based on Sorensen dissimilarities. Test performed using 9,999 permutations. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|----------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 5005.1 | 5005.1 | 1.1692 | 0.2432 | 3 | 0.3295 | 6.16 |
| Homogenization (Ho) | 1 | 3964.9 | 3964.9 | 1.007 | 0.251 | 3 | 0.488 | 1.21 |
| Coral species (Co) | 1 | 10694 | 10694 | 2.6041 | 0.0001 | 9780 | 0.0003 | 18.59 |
| PrxHo | 1 | 3916.8 | 3916.8 | 1.0434 | 0.2427 | 18 | 0.4538 | 4.13 |
| PrxCo | 1 | 4280.9 | 4280.9 | 1.0424 | 0.3601 | 9808 | 0.402 | 4.27 |
| HoxCo | 1 | 3937.2 | 3937.2 | 0.9587 | 0.606 | 9797 | 0.533 | 0.00 |
| PrxHoxCo | 1 | 3753.9 | 3753.9 | 0.91408 | 0.7349 | 9810 | 0.5949 | 0.00 |
| Residual | 32 | 1.31E+05 | 4106.8 | | | | | |
| Total | 39 | 1.67E+05 | | | | | | 65.63 |

Supplementary Table 5. Permutational multivariate analysis of variance (PERMANOVA) for the relative abundance of bacterial community associated with *G. edwardsii*. Analysis based on Bray-Curtis dissimilarities, excluding PFA-PBS treated samples. Test performed using 9,999 permutations. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|--------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 4514.2 | 4514.2 | 1.0527 | 0.3371 | 9843 | 0.4014 | 6.77 |
| Homogenization (Ho) | 1 | 3602.4 | 3602.4 | 0.84007 | 0.8329 | 9823 | 0.6192 | 0.00 |
| PrxHo | 1 | 4025.6 | 4025.6 | 0.93876 | 0.6294 | 9830 | 0.514 | 0.00 |
| Residual | 16 | 68611 | 4288.2 | | | | | 93.23 |
| Total | 19 | 80753 | | | | | | |

Supplementary Table 6. Permutational multivariate analysis of variance (PERMANOVA) for the composition (Presence/Absence) of bacterial community associated with *G. edwardsi*. Analysis based on Sorenson dissimilarities, excluding PFA-PBS treated samples. Test performed using 9,999 permutations. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|--------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 4485 | 4485 | 1.053 | 0.3481 | 9827 | 0.397 | 6.79 |
| Homogenization (Ho) | 1 | 3544 | 3544 | 0.83206 | 0.8531 | 9820 | 0.6415 | 0.00 |
| PrxHo | 1 | 3836.6 | 3836.6 | 0.90077 | 0.7292 | 9830 | 0.5557 | 0.00 |
| Residual | 16 | 68148 | 4259.3 | | | | | 93.21 |
| Total | 19 | 80014 | | | | | | |

Supplementary Table 7. Permutational multivariate analysis of variance (PERMANOVA) for the relative abundance to compare bacterial community associated with *G. edwardsi* preserved with PFA versus the other preservation and homogenization methods. Analysis based on Bray-Curtis dissimilarities. Test performed using 9,999 permutations. Bonferroni *p*-value for four comparisons 0.0125. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|--------|--------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 4648.6 | 4648.6 | 1.0934 | 0.2496 | 126 | 0.3881 | 12.66 |
| | Residual | 7 | 29760 | 4251.4 | | | | | 87.34 |
| | Total | 8 | 34408 | | | | | | |
| DMSO-Cr | Treatment | 1 | 4316.3 | 4316.3 | 1.0148 | 0.4094 | 126 | 0.4323 | 5.46 |
| | Residual | 7 | 29774 | 4253.4 | | | | | 94.54 |
| | Total | 8 | 34090 | | | | | | |
| LN-BB | Treatment | 1 | 4949.4 | 4949.4 | 1.1885 | 0.1176 | 126 | 0.3179 | 17.08 |
| | Residual | 7 | 29152 | 4164.5 | | | | | 82.92 |
| | Total | 8 | 34101 | | | | | | |
| LN-Cr | Treatment | 1 | 4914.3 | 4914.3 | 1.1738 | 0.0971 | 126 | 0.3243 | 16.51 |
| | Residual | 7 | 29308 | 4186.8 | | | | | 83.49 |
| | Total | 8 | 34222 | | | | | | |

Supplementary Table 8. Permutational multivariate analysis of variance (PERMANOVA) for the composition (Presence/Absence) to compare bacterial community associated with *G. edwardsi* preserved with PFA versus the other preservation and homogenization methods. Analysis based on Sorensen dissimilarities. Test performed using 9,999 permutations. Bonferroni *p*-value for four comparisons 0.0125. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|--------|--------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 4588.5 | 4588.5 | 1.0794 | 0.2446 | 126 | 0.3878 | 11.79 |
| | Residual | 7 | 29757 | 4251 | | | | | 88.21 |
| | Total | 8 | 34346 | | | | | | |
| DMSO-Cr | Treatment | 1 | 4256.1 | 4256.1 | 0.9979 | 0.4246 | 126 | 0.4444 | 0 |
| | Residual | 7 | 29855 | 4265.1 | | | | | 100 |
| | Total | 8 | 34112 | | | | | | |
| LN-BB | Treatment | 1 | 4688.5 | 4688.5 | 1.1157 | 0.2062 | 126 | 0.3649 | 13.89 |
| | Residual | 7 | 29417 | 4202.4 | | | | | 86.11 |
| | Total | 8 | 34105 | | | | | | |
| LN-Cr | Treatment | 1 | 4741.6 | 4741.6 | 1.1336 | 0.1116 | 126 | 0.3536 | 14.78 |
| | Residual | 7 | 29280 | 4182.8 | | | | | 85.22 |
| | Total | 8 | 34021 | | | | | | |

Supplementary Table 9. Permutational multivariate analysis of variance (PERMANOVA) for the relative abundance of bacterial community associated with *I. palifera*. Analysis based on Bray-Curtis dissimilarities, excluding PFA-PBS treated samples. Test performed using 9,999 permutations. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|--------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 5067.8 | 5067.8 | 1.2937 | 0.0557 | 9832 | 0.2036 | 13.31 |
| Homogenization (Ho) | 1 | 4442.7 | 4442.7 | 1.1341 | 0.1959 | 9834 | 0.3224 | 9.00 |
| PrxHo | 1 | 3806.3 | 3806.3 | 0.97164 | 0.5716 | 9836 | 0.4778 | 0.00 |
| Residual | 16 | 62678 | 3917.4 | | | | | 77.69 |
| Total | 19 | 75995 | | | | | | |

Supplementary Table 10. Permutational multivariate analysis of variance (PERMANOVA) for the composition (Presence/Absence) of bacterial community associated with *I. palifera* Analysis based on Sorensen dissimilarities, excluding PFA-PBS treated samples. Test performed using 9,999 permutations. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------------------|----|--------|--------|----------|---------|--------------|--------|--------|
| Preservation (Pr) | 1 | 4801 | 4801 | 1.2141 | 0.0948 | 9822 | 0.2571 | 11.73 |
| Homogenization (Ho) | 1 | 4358.1 | 4358.1 | 1.1021 | 0.2402 | 9815 | 0.354 | 8.10 |
| PrxHo | 1 | 3834.1 | 3834.1 | 0.96962 | 0.602 | 9817 | 0.4855 | 0.00 |
| Residual | 16 | 63268 | 3954.3 | | | | | 80.17 |
| Total | 19 | 76261 | | | | | | |

Supplementary Table 11. Permutational multivariate analysis of variance (PERMANOVA) for the relative abundance to compare bacterial community associated with *I. palifera* preserved with PFA versus the other preservation and homogenization methods. Analysis based on Bray-Curtis dissimilarities. Test performed using 9,999 permutations. Bonferroni *p*-value for four comparisons 0.0125. P(perm): *P*-value based on permutations, U. perms: Unique permutations, P(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| PFA vs. | Source | df | SS | MS | Pseudo-F | P(perm) | Unique perms | P(MC) | ECV(%) |
|---------|-----------|----|--------|--------|----------|---------|--------------|--------|--------|
| DMSO-BB | Treatment | 1 | 8919.8 | 8919.8 | 2.5166 | 0.0084 | 126 | 0.0259 | 35.51 |
| | Residual | 8 | 28355 | 3544.4 | | | | | 64.49 |
| | Total | 9 | 37275 | | | | | | |
| DMSO-Cr | Treatment | 1 | 8187.3 | 8187.3 | 2.3589 | 0.008 | 126 | 0.0339 | 34.27 |
| | Residual | 8 | 27767 | 3470.9 | | | | | 65.73 |
| | Total | 9 | 35954 | | | | | | |
| LN-BB | Treatment | 1 | 6417.9 | 6417.9 | 1.7631 | 0.014 | 126 | 0.1096 | 28.09 |
| | Residual | 8 | 29121 | 3640.1 | | | | | 71.91 |
| | Total | 9 | 35539 | | | | | | |
| LN-Cr | Treatment | 1 | 5040.4 | 5040.4 | 1.5268 | 0.0299 | 126 | 0.1642 | 24.50 |
| | Residual | 8 | 26411 | 3301.4 | | | | | 75.50 |
| | Total | 9 | 31452 | | | | | | |

Supplementary Table 12. Permutational multivariate analysis of variance (PERMANOVA) for the composition (Presence/Absence) to compare bacterial community associated with *I. palifera* preserved with PFA versus the other preservation and homogenization methods. Analysis based on Sorensen dissimilarities. Test performed using 9,999 permutations. Bonferroni *p*-value for four comparisons 0.0125. *P*(perm): *P*-value based on permutations, *U*. perms: Unique permutations, *P*(MC): Monte Carlo *P*- value, ECV(%): Estimated components of variation.

| PFA vs. | Source | df | SS | MS | Pseudo-F | <i>P</i> (perm) | Unique perms | <i>P</i> (MC) | ECV(%) |
|---------|-----------|----|--------|--------|----------|-----------------|--------------|---------------|--------|
| DMSO-BB | Treatment | 1 | 8113.1 | 8113.1 | 2.1897 | 0.0068 | 126 | 0.043 | 32.79 |
| | Residual | 8 | 29640 | 3705 | | | | | 67.21 |
| | Total | 9 | 37753 | | | | | | |
| DMSO-Cr | Treatment | 1 | 7580.3 | 7580.3 | 2.1124 | 0.0076 | 126 | 0.0481 | 32.05 |
| | Residual | 8 | 28707 | 3588.4 | | | | | 67.95 |
| | Total | 9 | 36287 | | | | | | |
| LN-BB | Treatment | 1 | 6073.8 | 6073.8 | 1.6129 | 0.0181 | 126 | 0.1376 | 25.93 |
| | Residual | 8 | 30126 | 3765.7 | | | | | 74.07 |
| | Total | 9 | 36200 | | | | | | |
| LN-Cr | Treatment | 1 | 5247.1 | 5247.1 | 1.5081 | 0.0271 | 126 | 0.1671 | 24.17 |
| | Residual | 8 | 27834 | 3479.2 | | | | | 75.83 |
| | Total | 9 | 33081 | | | | | | |

Supplementary Table 13. Number of bacterial phylotypes per percentage of occurrence. *For. *G. edwardsi* in the treatment PFA-decalcified $n=4$, thus percentages of occurrence are 25%, 50%, 75%, 100%. OTUs: Operational Taxonomic Units.

| Coral species | Method | | Singleton OTUs | Number of OTUs per percentage of occurrence | | | | | Total OTUs |
|--------------------|-----------------|----------------|-------------------|---|-------|-----|-----|------|------------|
| | Preservation | Homogenization | | 20% | 40% | 60% | 80% | 100% | |
| <i>G. edwardsi</i> | DMSO | Bead beating | 5,511 | 8,665 | 639 | 163 | 37 | 18 | 9,522 |
| | DMSO | Crushing | 3,867 | 6,171 | 517 | 101 | 27 | 7 | 6,823 |
| | Liquid nitrogen | Bead beating | 5,245 | 8,923 | 595 | 94 | 38 | 8 | 9,658 |
| | Liquid nitrogen | Crushing | 6,410 | 9,418 | 1,010 | 269 | 73 | 20 | 10,790 |
| | PFA | Decalcified | 3,056 | 4,340* | 406* | 63* | 15* | | 4,824 |
| <i>I. palifera</i> | DMSO | Bead beating | 2,890 | 4,140 | 291 | 113 | 47 | 21 | 4,612 |
| | DMSO | Crushing | 2,888 | 4,381 | 378 | 130 | 67 | 23 | 4,979 |
| | Liquid nitrogen | Bead beating | 4,252 | 7,060 | 589 | 103 | 22 | 13 | 7,787 |
| | Liquid nitrogen | Crushing | 2,233 | 3,174 | 273 | 114 | 44 | 42 | 3,647 |
| | PFA | Decalcified | 4,802 | 6,713 | 595 | 204 | 123 | 134 | 7,769 |

Supp. Table 14. Taxonomic identification of OTUs part of the Core 100% (A), dominant phylotypes (relative abundance ≥ 0.05 , B) and top 10 dominant phylotypes (C) in *G. edwardsi* bacterial assemblage. OTU: Operational Taxonomic Units.

A) Core 100% - *G. edwardsi*

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-------------------------------------|--|---------------------|---------------------|---|---------------------------------|
| <i>Anoxybacillus kestanbolensis</i> | | | | | OTU_1211, OTU_1300, OTU_2851 |
| <i>Bacteroides uniformis</i> | | | | OTU_2317 | |
| Class Alphaproteobacteria | OTU_44776, OTU_44920 | | | | OTU_33247 |
| Family Aerococcaceae | OTU_1854 | | | | |
| Family Endozoicimonaceae | OTU_207 | OTU_207 | OTU_54, OTU_207 | OTU_54, OTU_1924 | OTU_207 |
| Family Phyllobacteriaceae | | OTU_284 | | | OTU_56231 |
| Family Rhodobacteraceae | | | | | OTU_6265 |
| Family Ruminococcaceae | | | | | OTU_757 |
| Family Spirochaetaceae | | | | | OTU_7124 |
| Genus <i>Bacteroides</i> | | | | OTU_9499 | |
| Genus <i>Diaphorobacter</i> | OTU_3474 | OTU_3474 | | OTU_3474 | OTU_3474 |
| Genus <i>Erythrobacter</i> | OTU_769 | | | OTU_769 | |
| Genus <i>Halomicronema</i> | OTU_169, OTU_748, OTU_21418 | | | | |
| Genus <i>Marinomonas</i> | OTU_946 | | | | |
| Genus <i>Muricauda</i> | OTU_957 | | | | |
| Genus <i>Ruegeria</i> | | | | | OTU_63604 |
| Genus SGUS912 | | OTU_73, OTU_6055 | OTU_73 | OTU_73, OTU_896, OTU_6009, OTU_6055, OTU_6132, OTU_15786, OTU_15792, OTU_15979, OTU_16008 | |
| Order Gemellales | OTU_6137 | | | | |
| Order Kiloniellales | OTU_256, OTU_44796 | | OTU_256 | | OTU_256 |
| <i>Propionibacterium acnes</i> | OTU_5472, OTU_29486, OTU_33911, OTU_34038 | OTU_5472, OTU_32607 | OTU_5472, OTU_34191 | OTU_5472, OTU_29486, OTU_33913 | OTU_5472 |
| <i>Pseudomonas veronii</i> | | | OTU_7093, OTU_19203 | OTU_7093 | OTU_7093 |
| <i>Staphylococcus epidermidis</i> | | | | | OTU_2781 |
| <i>Stenotrophomonas geniculata</i> | | | | OTU_5826 | |

B) Dominant phylotypes - *G. edwardsi*

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-------------------------------------|-----------|--|-------|--------------------|---|
| <i>Acinetobacter johnsonii</i> | OTU_15208 | | | | |
| <i>Acinetobacter lwoffii</i> | | OTU_5687, OTU_12395 | | | OTU_5687 |
| <i>Anoxybacillus kestanbolensis</i> | | OTU_1211, OTU_1223, OTU_1300, OTU_2563, OTU_2842, OTU_2843, OTU_2846, OTU_2847, OTU_2851, OTU_2859, OTU_2913, OTU_2915, OTU_4436 | | | OTU_1211, OTU_1223, OTU_1300, OTU_2563, OTU_2842, OTU_2843, OTU_2845, OTU_2846, OTU_2847, OTU_2848, OTU_2850, OTU_2851, OTU_2856, OTU_2859, OTU_2909, OTU_2910, OTU_2913, OTU_2914, OTU_2915, OTU_2916, OTU_3522, OTU_3583, OTU_3584, OTU_3593, OTU_3958, OTU_3966, OTU_3983, OTU_3991, OTU_4003, OTU_4004, OTU_4012, OTU_4030, OTU_4042, OTU_4064, OTU_4077, OTU_4088, OTU_4093, OTU_4095, OTU_4108, OTU_4119, OTU_4135, OTU_4141, OTU_4166, OTU_4170, OTU_4182, OTU_4186, OTU_4203, OTU_4204, OTU_4205, OTU_4207, OTU_4213, OTU_4214, OTU_4216, OTU_4238, OTU_4240, OTU_4243, OTU_4244, OTU_4422, OTU_4427, OTU_4430, OTU_4431, OTU_4436, OTU_4452, OTU_4455, OTU_4511, OTU_5246, OTU_5643, OTU_7321 |
| <i>Ascidianibacter aurantiacus</i> | | OTU_6506 | | OTU_6506, OTU_7050 | |
| <i>Bacillus cereus</i> | | OTU_2673 | | | |
| <i>Bacillus thermoamylovorans</i> | OTU_2883 | | | | |
| <i>Bacteroides ovatus</i> | | OTU_6383 | | | OTU_6383 |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-------------------------------------|--------------------|--|---|---|---|
| <i>Bacteroides uniformis</i> | | | OTU_2317 | OTU_2317 | OTU_2317 |
| <i>Bifidobacterium pseudolongum</i> | | | OTU_15681 | | |
| <i>Brevibacterium aureum</i> | | | OTU_34884 | | |
| <i>Brevundimonas diminuta</i> | | OTU_23567 | | | OTU_23567 |
| Class Alphaproteobacteria | OTU_43157 | OTU_43157, OTU_44776, OTU_44920, OTU_46992 | OTU_29134, OTU_33653, OTU_44920, OTU_50122 | OTU_33247, OTU_33653, OTU_34012, OTU_34292, OTU_52955, OTU_71948 | OTU_29134, OTU_33247, OTU_34886, OTU_40855, OTU_43157, OTU_43513, OTU_43789, OTU_43801, OTU_44776, OTU_50121, OTU_56285, OTU_64829, OTU_69119 |
| Class Gammaproteobacteria | | | OTU_13285 | | |
| Class ML635J-21 | | OTU_46929 | | | |
| Class Mollicutes | | | OTU_37 | | |
| Class SJA-4 | | | OTU_23110 | | |
| <i>Clostridium perfringens</i> | | | OTU_39062 | | |
| <i>Coccinimonas marina</i> | OTU_9053 | | OTU_9053 | OTU_9053 | |
| <i>Coralibacter albidoslavus</i> | | | OTU_63 | | |
| <i>Desulfovibrio capillatus</i> | | OTU_1207 | | OTU_604, OTU_1207 | |
| <i>Endozoicomonas montiporae</i> | | | | | OTU_1494 |
| <i>Enterovibrio coralii</i> | | | | | OTU_2229 |
| <i>Eubacterium dolichum</i> | | OTU_2899 | | | |
| Family A4b | OTU_10191 | | | | |
| Family Aerococcaceae | OTU_1854, OTU_2944 | OTU_10, OTU_786, OTU_1854, OTU_2720, OTU_2891, OTU_2944, OTU_3060 | OTU_10, OTU_786, OTU_1854, OTU_2369, OTU_2718, OTU_2720, OTU_2750, OTU_2944, OTU_3559, OTU_3659 | OTU_786, OTU_1854, OTU_2720, OTU_2944, OTU_3060, OTU_4643 | OTU_2944 |
| Family Alteromonadaceae | | | OTU_32037 | | |
| Family Anaplasmataceae | | | | OTU_40563 | |
| Family Bacillaceae | | | | | OTU_29137 |
| Family Bacteriovoracaceae | | | OTU_2388 | | |
| Family Beijerinckiaceae | | OTU_22295 | | | |
| Family Chromatiaceae | | | | OTU_31368 | |
| Family Cohesibacteraceae | | OTU_43697, OTU_46932 | | | OTU_899 |
| Family Coxiellaceae | | | OTU_7718 | | |
| Family Desulfobulbaceae | | OTU_6087 | | OTU_6087 | |
| Family Desulfovibrionaceae | | | OTU_3832 | | OTU_16242, OTU_21775 |
| Family Endozoicimonaceae | OTU_54, OTU_207 | OTU_54, OTU_207 | OTU_54, OTU_157, OTU_207, OTU_208, OTU_209, OTU_210, OTU_211, OTU_212, | OTU_54, OTU_157, OTU_207, OTU_209, OTU_210, OTU_211, OTU_212, OTU_229, | OTU_207, OTU_1793, OTU_3485, OTU_7268, OTU_7561 |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|------------------------------|--|--|--|---|---|
| | | | OTU_215, OTU_226, OTU_229, OTU_230, OTU_255, OTU_277, OTU_297, OTU_300, OTU_333, OTU_334, OTU_338, OTU_344, OTU_348, OTU_363, OTU_375, OTU_398, OTU_422, OTU_432, OTU_437, OTU_441, OTU_409, OTU_432, OTU_437, OTU_441, OTU_456, OTU_459, OTU_460, OTU_478, OTU_483, OTU_492, OTU_505, OTU_577, OTU_579, OTU_597, OTU_598, OTU_612, OTU_1587, OTU_1730, OTU_1775, OTU_1793, OTU_1924, OTU_7561, OTU_7735 | OTU_230, OTU_255, OTU_297, OTU_300, OTU_333, OTU_334, OTU_338, OTU_344, OTU_348, OTU_363, OTU_375, OTU_398, OTU_422, OTU_432, OTU_437, OTU_441, OTU_456, OTU_459, OTU_474, OTU_483, OTU_490, OTU_492, OTU_577, OTU_597, OTU_598, OTU_612, OTU_1730, OTU_1793, OTU_1924, OTU_1926, OTU_6488, OTU_6989, OTU_7268, OTU_7561, OTU_9073, OTU_9124, OTU_12314, OTU_12701, OTU_12702 | |
| Family Enterobacteriaceae | | | OTU_6441 | | |
| Family Flammeeovirgaceae | OTU_17, OTU_5773, OTU_19149, OTU_22521, OTU_25155, OTU_26892, OTU_27759, OTU_28368 | OTU_17, OTU_5773, OTU_7264, OTU_16509, OTU_22521 | OTU_17, OTU_5773, OTU_22521, OTU_23170 | OTU_17, OTU_15950, OTU_27543 | OTU_17, OTU_5773, OTU_7264, OTU_14964, OTU_21595, OTU_22521, OTU_26892, OTU_27759, OTU_28148, OTU_28149 |
| Family Flavobacteriaceae | | OTU_166, OTU_23510 | OTU_166, OTU_778, OTU_6266, OTU_19177 | OTU_778, OTU_7593, OTU_11206, OTU_11573, OTU_16725, OTU_27531, OTU_30712, OTU_30720, OTU_30722, OTU_30743 | OTU_5821, OTU_16774 |
| Family Halomonadaceae | | | | OTU_2294 | |
| Family Helicobacteraceae | | | | | OTU_33792 |
| Family Hyphomicrobiaceae | OTU_33305 | OTU_33305 | OTU_47287 | OTU_47287 | OTU_63617, OTU_69340 |
| Family Ktedonobacteraceae | OTU_31667 | | | | |
| Family Lachnospiraceae | | OTU_2043 | | | |
| Family Lentisphaeraceae | | | OTU_45330 | | OTU_43097 |
| Family Methylobacteriaceae | | OTU_15477 | | | |
| Family Neisseriaceae | | | | OTU_6489 | |
| Family Peptostreptococcaceae | | | | | OTU_45883, OTU_47374 |
| Family Phyllobacteriaceae | OTU_284, OTU_33251 | OTU_284, OTU_33251, OTU_71604 | OTU_284, OTU_33251, OTU_34933, OTU_49682 | OTU_284, OTU_26957, OTU_33251 | OTU_284, OTU_17868, OTU_43816, OTU_56231, OTU_63620, OTU_66109 |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|----------------------------------|--|---|--|--|---|
| Family Pirellulaceae | | OTU_19684, OTU_26983 | | | |
| Family Piscirickettsiaceae | | | OTU_2331, OTU_13280 | OTU_2331 | |
| Family Porphyromonadaceae | OTU_6666 | | | | |
| Family Propionibacteriaceae | OTU_22509 | | | | |
| Family Pseudanabaenaceae | OTU_58847 | | | OTU_24704 | |
| Family Pseudoalteromonadaceae | | | OTU_2193 | | OTU_2193, OTU_3100, OTU_3219 |
| Family Pseudomonadaceae | | | | | OTU_2900, OTU_6533 |
| Family Rhodobacteraceae | OTU_6265, OTU_46927, OTU_63155, OTU_66625 | OTU_6265, OTU_31981, OTU_33726, OTU_43572, OTU_53182, OTU_59408 | OTU_6265, OTU_25157, OTU_31981, OTU_43777, OTU_46927, OTU_67656, OTU_68288, OTU_73060, OTU_43300 | OTU_6265, OTU_8247, OTU_25157, OTU_47292, OTU_47497, OTU_65604, OTU_72843 | OTU_6265, OTU_46927, OTU_59408, OTU_65604, OTU_68288 |
| Family Rhodospirillaceae | | | OTU_43300 | | OTU_48923, OTU_49577 |
| Family Rikenellaceae | | | OTU_2323 | OTU_2323 | |
| Family Ruminococcaceae | | OTU_5732 | | | OTU_757, OTU_5732 |
| Family Spirochaetaceae | OTU_1269, OTU_3183, OTU_7124 | OTU_1269 | | OTU_1269, OTU_3183, OTU_8938 | OTU_1269, OTU_3183, OTU_7124, OTU_7263, OTU_10594, OTU_11472, OTU_11931, OTU_12162 |
| Family Vibrionaceae | | | | | OTU_2872, OTU_3211, OTU_6066, OTU_7269 |
| Family Weeksellaceae | | OTU_10762, OTU_15533 | | | |
| Family Xenococcaceae | | | OTU_885, OTU_44423, OTU_44455, OTU_46980 | OTU_885, OTU_44423, OTU_44455 | |
| Genus 02d06 | | | OTU_39190 | | OTU_39282 |
| Genus <i>Acinetobacter</i> | OTU_12387 | | | | OTU_6019 |
| Genus <i>Actinomyces</i> | | | | OTU_16723 | |
| Genus <i>Alcanivorax</i> | | | | | OTU_7429 |
| Genus <i>Anabaena</i> | | | OTU_63517 | | |
| Genus <i>Anaerococcus</i> | | | OTU_23868, OTU_28565 | | |
| Genus <i>Anaerospora</i> | | OTU_32870 | OTU_32870 | | OTU_32870 |
| Genus <i>Aquimarina</i> | | | OTU_9048 | OTU_9048 | |
| Genus <i>Bacillus</i> | | | | | OTU_3193, OTU_4174, OTU_5133, OTU_5145 |
| Genus <i>Bacteroides</i> | | OTU_6168, OTU_9499 | | OTU_9499 | |
| Genus <i>Candidatus Portiera</i> | | | | OTU_18933 | |
| Genus <i>Capnocytophaga</i> | | | | OTU_11205, OTU_27542 | |
| Genus <i>Chryseobacterium</i> | OTU_25925 | | | | |
| Genus <i>Cloacibacterium</i> | | OTU_970, OTU_22145 | OTU_22145 | | OTU_970, OTU_1513, OTU_10346, OTU_23664 |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|------------------------------|---|--|---------------------------------|--|---|
| Genus <i>Clostridium</i> | | | OTU_12675, OTU_38759, OTU_39191 | | |
| Genus <i>Comamonas</i> | | | | OTU_16055, OTU_19845, OTU_21444 | |
| Genus <i>Congregibacter</i> | | | OTU_19301 | OTU_6508, OTU_21388 | OTU_19830, OTU_21388 |
| Genus <i>Coprococcus</i> | | | | OTU_30745 | |
| Genus <i>Corynebacterium</i> | OTU_6790, OTU_33744, OTU_36716 | OTU_6790, OTU_33744, OTU_34477 | OTU_12410, OTU_30862, OTU_37089 | OTU_12410, OTU_16057, OTU_30862 | OTU_6790, OTU_12410, OTU_17918, OTU_33744, OTU_6790 |
| Genus <i>Delftia</i> | | | OTU_18355 | OTU_18355, OTU_25878 | |
| Genus <i>Diaphorobacter</i> | OTU_3474 | OTU_969, OTU_3474, OTU_18563, OTU_19565 | OTU_3474, OTU_18563 | OTU_3474 | OTU_3474 |
| Genus <i>Enhydrobacter</i> | | OTU_23505 | | | |
| Genus <i>Erythrobacter</i> | OTU_769 | OTU_769 | OTU_769, OTU_63345 | OTU_769 | |
| Genus <i>Exiguobacterium</i> | | | OTU_164, OTU_926 | | OTU_164 |
| Genus <i>Ferrimonas</i> | | | | | OTU_2238 |
| Genus <i>Frankia</i> | OTU_43530 | | | | |
| Genus <i>Fulvivirga</i> | | OTU_19475 | | | |
| Genus <i>Fusobacterium</i> | | | | OTU_44093 | OTU_44093 |
| Genus <i>Garciaella</i> | OTU_33821 | | | | |
| Genus <i>Glaciecola</i> | | | OTU_17735 | | OTU_17735, OTU_23420 |
| Genus <i>Granulicatella</i> | | OTU_2806, OTU_3637 | | | |
| Genus <i>Haliangium</i> | | | OTU_1565 | | |
| Genus <i>Halomicronema</i> | OTU_169, OTU_748, OTU_21418, OTU_23662, OTU_29504, OTU_39562, OTU_43191 | OTU_748, OTU_21418, OTU_29504, OTU_34682, OTU_44107, OTU_62583 | | OTU_21418, OTU_23662, OTU_29504, OTU_34682 | |
| Genus <i>Herbaspirillum</i> | | | OTU_11487 | | |
| Genus <i>Hyphomicrobium</i> | | OTU_46545 | | | |
| Genus <i>Inquilinus</i> | | OTU_70486 | | | OTU_44130, OTU_53914, OTU_58822 |
| Genus <i>Lactobacillus</i> | | | OTU_9 | | OTU_9, OTU_13, OTU_1003 |
| Genus <i>Lampropedia</i> | | | | OTU_20315 | |
| Genus <i>Leptolyngbya</i> | OTU_39407, OTU_40001 | | | OTU_32585 | |
| Genus <i>Leptonema</i> | | | OTU_8849 | | |
| Genus <i>Lewinella</i> | | | OTU_13286 | | |
| Genus <i>Marinomonas</i> | OTU_946 | | | | |
| Genus <i>Moraxella</i> | OTU_15816 | | | OTU_15816, OTU_16724, OTU_20316, OTU_20322, OTU_21925, OTU_21971 | |
| Genus <i>Muricauda</i> | OTU_957 | | OTU_880, OTU_957, OTU_7598 | OTU_589, OTU_957, OTU_7598 | |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-----------------------------|--|---|--|--|--|
| Genus <i>Nisaea</i> | OTU_26873 | | | OTU_26873 | OTU_26873 |
| Genus <i>Paracoccus</i> | | | | OTU_71952 | |
| Genus <i>Pelomonas</i> | | OTU_28818 | OTU_28818 | OTU_28818 | |
| Genus <i>Peptoniphilus</i> | | | OTU_22978 | | |
| Genus <i>Phaeobacter</i> | | | OTU_63336 | | |
| Genus <i>Photobacterium</i> | | | | | OTU_2228, OTU_3218 |
| Genus <i>Planctomyces</i> | | OTU_12245 | | | |
| Genus <i>Porphyromonas</i> | | | | OTU_27540 | |
| Genus <i>Prevotella</i> | OTU_6343 | | | OTU_6343, OTU_7309 | |
| Genus <i>Pseudomonas</i> | OTU_16280 | OTU_15232, OTU_19927 | OTU_15232, OTU_19071, OTU_19888, OTU_19927, OTU_20648 | OTU_15696, OTU_20319, OTU_33629 | OTU_15232, OTU_19927 |
| Genus <i>Pseudoruegeria</i> | OTU_44674, OTU_63624 | OTU_44674 | | OTU_67172 | |
| Genus <i>Ralstonia</i> | | OTU_10704 | | | |
| Genus <i>Rivularia</i> | | | OTU_1568 | OTU_1568 | |
| Genus <i>Roseivirga</i> | | OTU_16590 | | | |
| Genus <i>Rubritalea</i> | | | | | OTU_23419 |
| Genus <i>Ruegeria</i> | | | | | OTU_63604, OTU_66706, |
| Genus <i>Ruminococcus</i> | | OTU_33514 | | | |
| Genus <i>Salinisphaera</i> | | | OTU_6543, OTU_19107, OTU_19115 | OTU_6821 | |
| Genus SC3-56 | | OTU_236 | OTU_236, OTU_9114, OTU_15982, OTU_16003, OTU_19141 | OTU_236 | OTU_236 |
| Genus <i>Schlegelella</i> | | | | OTU_20314 | |
| Genus SGUS912 | OTU_73, OTU_896, OTU_6055, OTU_15792, OTU_15979, OTU_15987, OTU_16008 | OTU_73, OTU_896, OTU_6010, OTU_6055, OTU_6132, OTU_8534, OTU_15792, OTU_15979, OTU_15984, OTU_15987, OTU_15987, OTU_15998, OTU_16008, OTU_16320 | OTU_73, OTU_896, OTU_2796, OTU_6009, OTU_6055, OTU_8534, OTU_11195, OTU_11526, OTU_11563, OTU_11619, OTU_15562, OTU_15786, OTU_15792, OTU_15979, OTU_15984, OTU_15987, OTU_15994, OTU_15998, OTU_16008, OTU_16016, OTU_16038, OTU_16349, OTU_16364, OTU_17412, OTU_18914, OTU_20251, OTU_20574, OTU_23166 | OTU_73, OTU_896, OTU_5755, OTU_5771, OTU_6009, OTU_6055, OTU_6132, OTU_8534, OTU_11195, OTU_11526, OTU_11563, OTU_15562, OTU_15786, OTU_15792, OTU_15979, OTU_15984, OTU_15987, OTU_15994, OTU_15998, OTU_16008, OTU_16038, OTU_16349, OTU_16364, OTU_17412, OTU_18914, OTU_20251, OTU_20574, OTU_23166 | OTU_73, OTU_896, OTU_6055, OTU_8534, OTU_15792, OTU_15979, OTU_15987, OTU_15998, OTU_16008 |
| Genus <i>Shewanella</i> | | | | | OTU_7254, OTU_7279 |
| Genus SMB53 | | | OTU_45438 | | OTU_45438 |
| Genus <i>Sphingomonas</i> | | OTU_44009, OTU_44034 | | | OTU_62969 |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|--------------------------------------|---|--|---|------------------------------------|---|
| Genus <i>Spirochaeta</i> | | | | | OTU_7110 |
| Genus <i>Staphylococcus</i> | | | OTU_1800 | | |
| Genus <i>Streptococcus</i> | OTU_194, OTU_3059 | OTU_194, OTU_1258, OTU_2949, OTU_3059, OTU_3312, OTU_3313, OTU_3314, OTU_4336, OTU_4588, OTU_4610, OTU_4881 | OTU_194, OTU_2949, OTU_3059 | | OTU_3351 |
| Genus <i>Thalassomonas</i> | | | | | OTU_6065, OTU_14965 |
| Genus <i>Tenacibaculum</i> | | | | | OTU_12015, OTU_17919, OTU_17926 |
| Genus <i>Turicibacter</i> | | | | | OTU_38107 |
| Genus vadinHB04 | | OTU_1845 | | | |
| Genus <i>Xenococcus</i> | | | | | |
| Kingdom Bacteria | | | OTU_13045 | | OTU_33386, OTU_34520 |
| <i>Lysinibacillus boronitolerans</i> | | OTU_293 | | | |
| <i>Massilia alkalitolerans</i> | | OTU_16361 | | | |
| <i>Massilia haematophila</i> | | | OTU_15956 | | |
| <i>Methylobacterium mesophilicum</i> | | | | OTU_67462 | |
| <i>Methylotenera mobilis</i> | | OTU_16274 | | | |
| <i>Microbacterium chocolatum</i> | | | | OTU_37411 | |
| <i>Micrococcus luteus</i> | OTU_2030 | | | OTU_2030, OTU_37019 | OTU_2030, OTU_37019, OTU_37470 |
| <i>Nautella italicica</i> | | | OTU_67439 | | |
| <i>Neisseria bacilliformis</i> | | | | OTU_8585, OTU_8588 | |
| <i>Neisseria subflava</i> | | OTU_6574, OTU_9257 | | | |
| Order Burkholderiales | | | OTU_16039 | | |
| Order Chrococcales | OTU_60114 | | | | |
| Order Clostridiales | | | OTU_18895, OTU_31315 | OTU_22705, OTU_29027 | |
| Order Entomoplasmatales | | | OTU_18908 | OTU_18908, OTU_24457 | |
| Order Flavobacteriales | | | OTU_24408 | OTU_24408, OTU_24467, OTU_28814 | |
| Order Gemellales | OTU_3309, OTU_3325, OTU_4356, OTU_6137 | OTU_2171, OTU_3065, OTU_4724, OTU_6137 | OTU_2171, OTU_3065, OTU_4541, OTU_5012, OTU_6137 | | OTU_3325, OTU_5062 |
| Order Kiloniellales | OTU_256, OTU_2053, OTU_22449, OTU_25250, OTU_44796, OTU_56905 | OTU_256 | OTU_256, OTU_1204, OTU_2053, OTU_2854, OTU_22449, OTU_25250, OTU_29130, OTU_29131, OTU_32433, OTU_32484, OTU_33712, OTU_43582, | OTU_256, OTU_1204, OTU_33712 | OTU_256, OTU_1204, OTU_1531, OTU_2053, OTU_2854, OTU_18287, OTU_18315, OTU_21723, OTU_22449, OTU_23390, OTU_25250, OTU_27638, OTU_27825, OTU_28514, |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-----------------------------------|----------|---|--|---|---|
| | | | OTU_43584, OTU_43589, OTU_43919 | | OTU_28515, OTU_28516, OTU_28995, OTU_29007, OTU_29130, OTU_29131, OTU_29132, OTU_29194, OTU_30944, OTU_32000, OTU_32006, OTU_32174, OTU_32178, OTU_32429, OTU_32433, OTU_32484, OTU_32873, OTU_32876, OTU_32877, OTU_34524, OTU_36049, OTU_36685, OTU_43582, OTU_43584, OTU_43589, OTU_43591, OTU_43609, OTU_43815, OTU_43818, OTU_43823, OTU_43919, OTU_43923, OTU_43925, OTU_44181, OTU_44188, OTU_49659 |
| Order Legionellales | | | OTU_16041 | | |
| Order Myxococcales | | OTU_2260, OTU_6239 | OTU_2770, OTU_6239, OTU_6366, OTU_17310 | OTU_19, OTU_2770, OTU_3457, OTU_5868, OTU_6239, OTU_6282, OTU_6302, OTU_6512, OTU_7168, OTU_16464 OTU_16899, OTU_22422 | |
| Order Oceanospirillales | | | OTU_214, OTU_340, OTU_499, OTU_596 | OTU_214, OTU_499, OTU_596, OTU_12700 | OTU_5804, OTU_6331, OTU_7887, OTU_7890, OTU_7891, OTU_7897, OTU_7900, OTU_7902, OTU_7905, OTU_7908, OTU_8118 |
| Order Phycisphaerales | | | OTU_25186 | | |
| Order RF39 | | | | OTU_4 | |
| Order Rhizobiales | | OTU_27728, OTU_43799, OTU_44232, OTU_44663 | OTU_48912 | OTU_44232, OTU_59120, OTU_65671, OTU_66673, OTU_66681 | OTU_44232, OTU_66667 |
| Order Rhodospirillales | | | | OTU_2347 | OTU_11309, OTU_19828 |
| Order Rickettsiales | | | | OTU_47971, OTU_58188 | |
| Order Roseiflexales | OTU_617 | OTU_617 | | OTU_617 | OTU_617 |
| Order Sphingomonadales | | | OTU_32801 | OTU_32801 | |
| Order Vibrionales | | | | | OTU_17916, OTU_19379 |
| <i>Paenibacillus barengoltzii</i> | OTU_2256 | | | | |
| <i>Photobacterium damselae</i> | | | | | OTU_3083, OTU_3213 |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-------------------------------------|--|--|--|--|---|
| <i>Photobacterium rosenbergii</i> | OTU_2052 | | | | |
| Phylum Bacteroidetes | | OTU_7566 | OTU_7566, OTU_18917, OTU_22021, OTU_22692, OTU_24444, OTU_25190 | OTU_7566, OTU_15782, OTU_18917, OTU_22021, OTU_22692, OTU_22693, OTU_24444, OTU_24505, OTU_25190 | OTU_7566, OTU_18917 |
| Phylum Spirochaetes | | | | | OTU_38106 |
| Phylum SR1 | | | | OTU_33993, OTU_35595 | |
| <i>Propionibacterium acnes</i> | OTU_5472, OTU_29486, OTU_32607, OTU_33911, OTU_33913, OTU_34038, OTU_34191 | OTU_2942, OTU_5472, OTU_12964, OTU_15337, OTU_15345, OTU_15466, OTU_29486, OTU_31721, OTU_32607, OTU_33702, OTU_33906, OTU_33911, OTU_33913, OTU_33935, OTU_33942, OTU_34029, OTU_34038, OTU_34191, OTU_34233, OTU_34236, OTU_34654, OTU_43531 | OTU_2942, OTU_5472, OTU_12964, OTU_15337, OTU_15345, OTU_15466, OTU_29486, OTU_31721, OTU_32607, OTU_32890, OTU_33513, OTU_33702, OTU_33906, OTU_33911, OTU_33912, OTU_33913, OTU_33935, OTU_33942, OTU_34029, OTU_34038, OTU_34188, OTU_34191, OTU_34225, OTU_34233, OTU_34236, OTU_34654, OTU_34863, OTU_35438, OTU_36466, OTU_43531 | OTU_2942, OTU_5472, OTU_12964, OTU_15337, OTU_26885, OTU_29486, OTU_32607, OTU_33702, OTU_33906, OTU_33911, OTU_33913, OTU_33935, OTU_33942, OTU_34029, OTU_34038, OTU_34188, OTU_34191, OTU_34233 | |
| <i>Propionibacterium granulosum</i> | | OTU_35447 | OTU_35447 | | |
| <i>Pseudomonas fragi</i> | | OTU_15598 | OTU_15598 | | OTU_15598 |
| <i>Pseudomonas stutzeri</i> | | | | OTU_15254 | |
| <i>Pseudomonas veronii</i> | OTU_7093 | OTU_910, OTU_7093, OTU_19203, OTU_19833 | OTU_7093, OTU_19203, OTU_19833 | OTU_7093 | OTU_910, OTU_7093, OTU_15922, OTU_19203, OTU_19833 |
| <i>Pseudoxanthomonas mexicana</i> | | | | OTU_8590 | |
| <i>Roseomonas aerilata</i> | | OTU_58103 | | | |
| <i>Ruminococcus gnavus</i> | | | | OTU_3491 | |
| <i>Spirochaeta halophila</i> | OTU_9094 | | | OTU_9094 | OTU_9094, OTU_11465, OTU_11912, OTU_11917, OTU_11939, OTU_12017 |
| <i>Staphylococcus epidermidis</i> | OTU_2781 | OTU_2781 | OTU_2781, OTU_3780 | | OTU_2175, OTU_2781, OTU_2945, OTU_3279, OTU_4637, OTU_4760 |
| <i>Stenotrophomonas geniculata</i> | OTU_5826 | OTU_5826 | OTU_5826 | OTU_5826, OTU_8385, OTU_10466 | |
| <i>Veillonella dispar</i> | | OTU_753 | OTU_753 | | |
| <i>Vibrio harveyi</i> | | | | | OTU_3210 |
| <i>Xanthobacillus maris</i> | | | | OTU_16726 | |

C) Top 10 dominant phylotypes - *G. edwardsi*

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-------------------------------------|------------------|---------------------------------|---------------------------|------------------------------|---|
| <i>Anoxybacillus kestanholensis</i> | | OTU_1211, OTU_1223, OTU_1300 | | | OTU_1211, OTU_1223, OTU_1300, OTU_2847 |
| Family Aerococcaceae | | | OTU_1854 | | |
| Family Endozoicimonaceae | | | OTU_54 | OTU_54, OTU_300, OTU_1793 | |
| Family Flammoeovirgaceae | OTU_17, OTU_5773 | OTU_17 | | | |
| Family Flavobacteriaceae | | | | OTU_11206 | |
| Family Neisseriaceae | | | | OTU_6489 | |
| Genus <i>Bacillus</i> | | | | | OTU_3193 |
| Genus <i>Diaphorobacter</i> | OTU_3474 | OTU_3474 | | OTU_3474 | |
| Genus <i>Halomicronema</i> | OTU_43191 | | | | |
| Genus SC3-56 | | | OTU_236 | | |
| Genus SGUS912 | OTU_73 | OTU_73 | OTU_73, OTU_896, OTU_6055 | OTU_73, OTU_6055 | OTU_73 |
| Genus <i>Streptococcus</i> | OTU_194 | OTU_194 | | | |
| Order Kiloniellales | OTU_256 | | OTU_256 | | OTU_256 |
| Order Oceanospirillales | | | | | OTU_6331 |
| Phylum Bacteroidetes | | | | OTU_7566 | |
| <i>Propionibacterium acnes</i> | OTU_5472 | OTU_5472, OTU_29486 | OTU_5472, OTU_29486 | OTU_5472 | OTU_5472 |
| <i>Pseudomonas veronii</i> | OTU_7093 | OTU_7093 | OTU_7093 | | OTU_7093 |
| <i>Staphylococcus epidermidis</i> | OTU_2781 | | | | |

Supp. Table 15. Taxonomic identification of OTUs part of the Core 100% (A), dominant phylotypes (relative abundance ≥ 0.1, B) and top 10 dominant phylotypes (C) in *I. palifera* bacterial assemblage. OTU: Operational Taxonomic Units.

A) Core 100% - *I. palifera*

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-------------------------------------|----------|-----------|-------------------|---|--|
| <i>Anoxybacillus kestanbolensis</i> | | OTU_1300 | | | OTU_1300 |
| <i>Brevundimonas diminuta</i> | | OTU_67153 | | | |
| <i>Endozoicomonas montiporae</i> | | | | OTU_2218, OTU_2328, OTU_2342, OTU_2434, OTU_2435, OTU_2457, OTU_2465, OTU_2487, OTU_2502, OTU_2536, OTU_2538, OTU_2566, OTU_2573, OTU_2585, OTU_2606, OTU_7199 | |
| Family Aerococcaceae | OTU_1854 | OTU_2715 | | OTU_10, OTU_1854 | OTU_54, OTU_173, OTU_187, OTU_207, OTU_264, OTU_265, OTU_287, OTU_904, OTU_1087, OTU_1399, OTU_1439, OTU_1447, OTU_1480, OTU_1587, OTU_1602, OTU_1775, OTU_1777, OTU_1778, OTU_1784, OTU_1786, OTU_1798, OTU_1799, OTU_1802, OTU_1922, OTU_1957, OTU_2226, OTU_2286, OTU_2372, OTU_2411, OTU_2416, OTU_2419, OTU_2422, OTU_2427, OTU_2432, OTU_2440, OTU_2445, OTU_2460, OTU_2466, OTU_2467, OTU_2468, OTU_2470, OTU_2479, OTU_2481, OTU_2486, OTU_2490, OTU_2495, OTU_2501, OTU_2507, OTU_2522, OTU_2523, OTU_2524, |
| Family Endozoicimonaceae | | OTU_207 | OTU_207, OTU_1775 | | |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|------------------------------|---------------------|--|---------------------------------|-------------------|---|
| | | | | | OTU_2526, OTU_2529, OTU_2540, OTU_2544, OTU_2545, OTU_2549, OTU_2553, OTU_2567, OTU_2568, OTU_2575, OTU_2578, OTU_2579, OTU_2586, OTU_2605, OTU_2607, OTU_2614, OTU_2623, OTU_2626, OTU_2627, OTU_2636, OTU_2639, OTU_2643, OTU_2646, OTU_2648, OTU_2819, OTU_6534, OTU_6604, OTU_7185, OTU_7197, OTU_7209, OTU_7213, OTU_7239, OTU_7770, OTU_7781, OTU_7811, OTU_9317, OTU_9366, OTU_9384, OTU_11763, OTU_14003 |
| Family Methylobacteriaceae | | OTU_15477 | | | |
| Family Phyllobacteriaceae | | | | | OTU_284 |
| Family Ruminococcaceae | | | | | OTU_933, OTU_5732 |
| Genus <i>Bacteroides</i> | | OTU_6168 | | | OTU_9499, OTU_12526 |
| Genus <i>Delftia</i> | | | | OTU_18355 | |
| Genus <i>Diaphorobacter</i> | OTU_3474, OTU_18563 | OTU_969, OTU_3474, OTU_13531, OTU_18563, OTU_19565 | OTU_969, OTU_3474, OTU_18563 | OTU_969, OTU_3474 | OTU_3474 |
| Genus <i>Klebsiella</i> | | OTU_7973 | | | |
| Genus <i>Lactobacillus</i> | | | | | OTU_13, OTU_66, OTU_152, OTU_273 |
| Genus <i>Marinomonas</i> | | | | | OTU_268 |
| Genus <i>Parabacteroides</i> | | | | | OTU_8387 |
| Genus <i>Pseudomonas</i> | | | OTU_15232 | | |
| Genus <i>Reinekea</i> | | | | | OTU_2658 |
| Genus SGUS912 | | | | | OTU_73 |
| Genus <i>Sphingobium</i> | OTU_28287 | | | | |
| Genus <i>Streptococcus</i> | | | OTU_194 | | |
| Order Clostridiales | | | | | OTU_31, OTU_1876 |
| Order Entomoplasmatales | | | | | OTU_1641 |
| Order Kiloniellales | | | | | OTU_256 |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-----------------------------------|--|--|--------------------------------|--------------------------------|--------------------------------------|
| Order Myxococcales | | | | OTU_6302, OTU_6539 | OTU_237, OTU_239, OTU_6302, OTU_6539 |
| <i>Propionibacterium acnes</i> | OTU_5472, OTU_11342, OTU_29486, OTU_32607, OTU_33702, OTU_33906, OTU_33912, OTU_33935, OTU_33942, OTU_34029, OTU_34038, OTU_34191, OTU_34233, OTU_34236, OTU_43531 | OTU_5472, OTU_15337, OTU_29486, OTU_32607, OTU_33911, OTU_33913, OTU_34029, OTU_34038, OTU_34191 | OTU_5472, OTU_33913, OTU_34191 | OTU_5472, OTU_33911, OTU_33935 | OTU_5472, OTU_33913 |
| <i>Pseudomonas fragi</i> | | | OTU_15598 | | |
| <i>Pseudomonas veronii</i> | OTU_7093 | | OTU_7093, OTU_19203 | OTU_7093, OTU_19203 | OTU_7093, OTU_19203 |
| <i>Staphylococcus epidermidis</i> | OTU_2781 | OTU_2781, OTU_3064 | | | |

B) Dominant - *I. palifera*

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-------------------------------|---|---|---|--|--|
| <i>Acinetobacter lwoffii</i> | OTU_5687, OTU_10899, OTU_10903 | | OTU_5687 | | |
| <i>Bacillus agaradhaerens</i> | OTU_198 | | | | |
| <i>Brevundimonas diminuta</i> | | OTU_23567, OTU_59723 | | | |
| Class Bacilli | OTU_78161 | | | | |
| <i>Escherichia coli</i> | | | OTU_507 | | |
| Family Aerococcaceae | OTU_10, OTU_786, OTU_1854, OTU_2369, OTU_2718, OTU_3060, OTU_4731 | OTU_10, OTU_786, OTU_1854, OTU_2369, OTU_2715, OTU_2750, OTU_2944, OTU_3060 | OTU_10, OTU_786, OTU_1854, OTU_2369, OTU_2944, OTU_3060 | OTU_10, OTU_187, OTU_194, OTU_205, OTU_207, OTU_239, OTU_265, OTU_287, OTU_904, OTU_969, OTU_1087, OTU_1399, OTU_1439, OTU_1587, OTU_1602, OTU_1641, OTU_1775, OTU_1777, OTU_1799, OTU_1854, OTU_1957, OTU_2030, OTU_2175, OTU_2218, OTU_2286, OTU_2294, OTU_2328, OTU_2342, OTU_2411, OTU_2422, OTU_2432, OTU_2435, OTU_2445, | OTU_13, OTU_31, OTU_187, OTU_207, OTU_226, OTU_239, OTU_264, OTU_265, OTU_273, OTU_287, OTU_904, OTU_1009, OTU_1081, OTU_1087, OTU_1284, OTU_1286, OTU_1395, OTU_1399, OTU_1423, OTU_1439, OTU_1440, OTU_1448, OTU_1463, OTU_1602, OTU_1641, OTU_1775, OTU_1777, OTU_1778, OTU_1798, OTU_1799, OTU_1800, OTU_1802, OTU_1876, |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|----------------------------|-----------|----------------------|-------------------|--|---|
| | | | | OTU_2457, OTU_2479, OTU_2501, OTU_2502, OTU_2523, OTU_2524, OTU_2526, OTU_2529, OTU_2540, OTU_2573, OTU_2575, OTU_2607, OTU_2614, OTU_2623, OTU_2627, OTU_2648, OTU_2750, OTU_2781, OTU_2944, OTU_3474, OTU_3793, OTU_5472, OTU_5998, OTU_6302, OTU_6481, OTU_6539, OTU_6575, OTU_7093, OTU_7095, OTU_7168, OTU_9207, OTU_12964, OTU_15232, OTU_15598, OTU_17706, OTU_18355, OTU_18563, OTU_19203, OTU_19313, OTU_19600, OTU_19833, OTU_21605, OTU_21606, OTU_22509, OTU_23229, OTU_23967, OTU_24995, OTU_26885, OTU_28287, OTU_28818, OTU_29486, OTU_32268, OTU_32607, OTU_32890, OTU_33702, OTU_33744, OTU_33906, OTU_33911, OTU_33913, OTU_33935, OTU_34029, OTU_34038, OTU_34191, OTU_34233, OTU_34477, OTU_34665, OTU_44527, OTU_45686, OTU_47320, OTU_47497, OTU_59064, OTU_63506 | OTU_1922, OTU_1957, OTU_2218O, TU_2226, OTU_2286, OTU_2328, OTU_2342, OTU_2411, OTU_2416, OTU_2422, OTU_2432, OTU_2434, OTU_2435 OTU_2445, OTU_2457, OTU_2479, OTU_2490, OTU_2495, OTU_2501, OTU_2502, OTU_2507, OTU_2523, OTU_2524, OTU_2526, OTU_2529, OTU_2540, OTU_2553, OTU_2567, OTU_2573, OTU_2575, OTU_2578, OTU_2605, OTU_2607, OTU_2614, OTU_2623, OTU_2627, OTU_2636, OTU_2639, OTU_2648, OTU_5472, OTU_5732, OTU_6302, OTU_6534, OTU_6539, OTU_6604, OTU_7093, OTU_9499, OTU_17706 |
| Family Bifidobacteriaceae | OTU_37174 | | | | |
| Family Endozoicimonaceae | OTU_207 | OTU_207, OTU_287 | OTU_207, OTU_1775 | | |
| Family Halomonadaceae | | OTU_2294 | | | |
| Family Methylobacteriaceae | | OTU_15477, OTU_50253 | | | |
| Family Oxalobacteraceae | OTU_23821 | OTU_15600 | | | |
| Family Planococcaceae | OTU_4257 | | | | |
| Family Porphyromonadaceae | OTU_6666 | | | | |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|-----------------------------------|--|-----------------------------------|------------------------------------|-------|-----|
| Family Propionibacteriaceae | OTU_22509, OTU_39510 | | | | |
| Family Salinisphaeraceae | OTU_34146 | | | | |
| Genus <i>Acinetobacter</i> | OTU_16417, OTU_32647 | OTU_10931 | OTU_6019 | | |
| Genus <i>Bacillus</i> | OTU_3405, OTU_5688 | | OTU_2394 | | |
| Genus <i>Bacteroides</i> | | OTU_6168 | OTU_6168, OTU_7465 | | |
| Genus <i>Bifidobacterium</i> | OTU_32201 | | | | |
| Genus <i>Cloacibacterium</i> | OTU_970, OTU_1513, OTU_22145 | OTU_22145, OTU_12410 | OTU_970 | | |
| Genus <i>Coprococcus</i> | OTU_30073 | | | | |
| Genus <i>Corynebacterium</i> | OTU_6147, OTU_6790, OTU_12410, OTU_16057, OTU_30862, OTU_33744 | | OTU_12410, OTU_30862, OTU_33744 | | |
| Genus <i>Delftia</i> | OTU_18355, OTU_23836 | OTU_18355 | | | |
| Genus <i>Diaphorobacter</i> | OTU_969, OTU_3474, OTU_13531, OTU_18563, OTU_19565, OTU_19601 | OTU_3474, OTU_18563, OTU_19565 | OTU_3474, OTU_18563, OTU_19565 | | |
| Genus <i>Exiguobacterium</i> | | | OTU_164 | | |
| Genus <i>Finegoldia</i> | OTU_28291, OTU_28300, OTU_31095 | | | | |
| Genus <i>Granulicatella</i> | | | OTU_2806, OTU_3637 | | |
| Genus <i>Halomicronema</i> | | OTU_43191 | | | |
| Genus <i>Hydrogenophaga</i> | OTU_25858 | | | | |
| Genus <i>Janthinobacterium</i> | OTU_24708 | | | | |
| Genus KD1-23 | OTU_21877 | | | | |
| Genus <i>Klebsiella</i> | | OTU_7973 | | | |
| Genus <i>Lactobacillus</i> | | | OTU_13 | | |
| Genus <i>Lactococcus</i> | | | OTU_3012 | | |
| Genus <i>Massilia</i> | OTU_22484, OTU_25857 | | | | |
| Genus <i>Prevotella</i> | OTU_2717, OTU_31030 | OTU_2717 | | | |
| Genus <i>Pseudomonas</i> | OTU_15770, OTU_16293 | | OTU_15232 | | |
| Genus <i>Pseudoruegeria</i> | | OTU_44674 | | | |
| Genus <i>Ralstonia</i> | | OTU_6575 | | | |
| Genus <i>Rubrobacter</i> | OTU_7066 | | | | |
| Genus <i>Salinisphaera</i> | | OTU_6821 | | | |
| Genus <i>Sphingobium</i> | OTU_28287 | OTU_28287 | | | |
| Genus <i>Staphylococcus</i> | | | OTU_1800 | | |
| Genus <i>Stenotrophomonas</i> | | OTU_6113 | | | |
| Genus <i>Streptococcus</i> | OTU_194 | OTU_194, OTU_3059 | OTU_194, OTU_1274 | | |
| <i>Haemophilus parainfluenzae</i> | OTU_6570 | | | | |
| <i>Micrococcus luteus</i> | OTU_2030, OTU_44076 | | | | |
| Order Actinomycetales | OTU_46520 | | | | |
| Order Chroococcales | | | OTU_53053 | | |

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|------------------------------------|---|--|--|-------|-----|
| Order Clostridiales | | | OTU_11351 | | |
| Order Entomoplasmatales | OTU_1641 | OTU_1641, OTU_17706 | | | |
| Order Myxococcales | | OTU_239, OTU_6302, OTU_6539 | OTU_6302 | | |
| Order Salinisphaerales | OTU_12046 | | | | |
| <i>Propionibacterium acnes</i> | OTU_5472, OTU_11342, OTU_29486, OTU_31721, OTU_32607, OTU_32964, OTU_33513, OTU_33702, OTU_33906, OTU_33911, OTU_33912, OTU_33913, OTU_33935, OTU_33942, OTU_34029, OTU_34038, OTU_34191, OTU_34233, OTU_34236, OTU_34654, OTU_34964, OTU_35482, OTU_36335, OTU_36408, OTU_43531, OTU_44274 | OTU_5472, OTU_12964, OTU_15337, OTU_29486, OTU_32607, OTU_33702, OTU_33906, OTU_33911, OTU_33913, OTU_33935, OTU_33942, OTU_34029, OTU_34038, OTU_34191, OTU_34233 | OTU_5472, OTU_29486, OTU_32607, OTU_33702, OTU_33906, OTU_33911, OTU_33913, OTU_33935, OTU_33942, OTU_34029, OTU_34191 | | |
| <i>Pseudomonas fragi</i> | OTU_15598 | | OTU_15598 | | |
| <i>Pseudomonas mendocina</i> | OTU_21772 | | | | |
| <i>Pseudomonas veronii</i> | OTU_4847, OTU_7093, OTU_16278, OTU_22183, OTU_29222 | OTU_7093 | OTU_7093, OTU_19203 | | |
| <i>Staphylococcus epidermidis</i> | OTU_2781, OTU_3279, OTU_4991 | OTU_2781 | OTU_2175, OTU_2781 | | |
| <i>Stenotrophomonas geniculata</i> | OTU_5826 | OTU_5826, OTU_6660 | | | |
| <i>Veillonella dispar</i> | | OTU_753 | OTU_753 | | |

C) Top 10 dominant phylotypes - *I. palifera*

| Taxa | DMSO-BB | DMSO-Cr | LL-BB | LL-Cr | PFA |
|----------------------|---|---|---|--|--|
| Family Aerococcaceae | OTU_970, OTU_1854, OTU_2781, OTU_3474, OTU_5472, OTU_7093, OTU_12410, OTU_18563, OTU_29486, OTU_32607 | OTU_194, OTU_1641, OTU_1854, OTU_2781, OTU_2944, OTU_3474, OTU_5472, OTU_5826, OTU_15477, OTU_23567 | OTU_207, OTU_970, OTU_2781, OTU_2806, OTU_2944, OTU_3474, OTU_5472, OTU_6168, OTU_7093, OTU_29486 | OTU_207, OTU_239, OTU_1641, OTU_1775, OTU_1854, OTU_3474, OTU_5472, OTU_6302, OTU_6539, OTU_7093 | OTU_207, OTU_287, OTU_1439, OTU_1602, OTU_1775, OTU_2218, OTU_2411, OTU_2422, OTU_2502, OTU_6302 |