Supplementary file 2: Comparison of metagenomes of both the hot water springs

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| --- | --- | --- | --- | --- | --- | --- |
|  | Tuwa\_S | ES | EW | **Tuwa water** **(Mangrola et al., 2015)** | Unnai\_S | **Unnai water****(Mangrola et al., 2018)** |
| Phylum (%) | *Firmicutes (20)* | *Firmicutes (95)* | *Firmicutes (93)* | *Firmicutes (97)* | *Firmicutes (10)* | *Firmicutes (97)* |
|  | *Proteobacteria (22)* | *Proteobacteria (0.8)* | *Proteobacteria (2.3)* | *Proteobacteria (1.3)* | *Proteobacteria (14)* | *Proteobacteria (1.3)* |
|  | *Actinobacteria (1)* | *Actinobacteria (<0.6)* | *Actinobacteria (<0.6)* | *Actinobacteria (0.4)* | *Actinobacteria (0.6)* | *Actinobacteria (0.3)* |
|  | *Bacteroidetes (10)* | *Bacteroidetes (1.4)* | *Bacteroidetes (2.1)* | *-* | *Bacteroidetes (5)* | *-* |
|  | *Deinococcus-Thermus (11)* | *Deinococcus-Thermus (0.2)* | *Deinococcus-Thermus (0.1)* | *-* | *Deinococcus-Thermus (45)* | *-* |
|  | *Chloroflexi (4)* | *-* | *-* | *-* | *Chloroflexi (5)* | - |
|  | *Thermotogae (4.7)* | *-* | *-* | *-* | *Thermotogae (2.7)* | - |
|  |
| Family | *Bacillaceae (5)* | *Bacillaceae (15)* | *Bacillaceae (29)* | *Bacillaceae (94.6)* | *Bacillaceae (3.3)* | *Bacillaceae (94.63)* |
|  | *Paenibacillaceae (<0.5)* | *Paenibacillaceae (44)* | *Paenibacillaceae (27)* | *Paenibacillaceae (0.4)* | *Paenibacillaceae (0.5)* | *Paenibacillaceae (1.15)* |
|  | *Clostridiaceae (0.5)* | *-* | *-* | *Clostridiaceae (0.4)* | *-* | *Clostridiaceae (0.3)* |
|  | *Staphylococcaceae (11)* | *Staphylococcaceae (13)* | *Staphylococcaceae (14)* | *-* | *Staphylococcaceae (5)* | *-* |
|  | *Streptococcaceae (6)* | *Streptococcaceae (8)* | *Streptococcaceae (7)* | *-* | *Streptococcaceae (3)* | *-* |
|  | *Veillonellaceae (2)* | *Veillonellaceae (9)* | *Veillonellaceae (8)* | *-* | *Veillonellaceae (0.4)* | *-* |
|  |
| Genus | *-* | *Brevibacillus (42)* | *Brevibacillus (26)* | *-* | *Brevibacillus (<0.1)* | *Bacillus**(90.70)* |
|  | *Staphylococcus (6)* | *Staphylococcus (13)* | *Staphylococcus (14)* | *-* | *Staphylococcus (4)* | *Geobacillus (2.09)* |
|  | *Streptococcus (<0.1)* | *Streptococcus (7)* | *Streptococcus (6)* | *-* | *Streptococcus (<0.1)* | *Paenibacillus**(0.95)* |
|  | *Anaerosinus**(<0.1)* | *Anaerosinus**(9)* | *Anaerosinus**(7)* | *-* | *Anaerosinus**(<0.1)* | *Clostridium (0.68)* |
|  | *-* | *Anoxybacillus**(7)* | *Anoxybacillus**(8)* | *-* | *Anoxybacillus**(0.2)* | *Anoxybacillus**(0.41)* |
|  | *Bacillus**(2)* | *Bacillus**(4)* | *Bacillus**(11)* | *-* | *Bacillus**(2.2)* | *-* |
|  | *-* | *Geobacillus (1.8)* | *Geobacillus (2.8)* | *-* | *Geobacillus (<0.1)* | *-* |
|  | *Pseudomonas (1.9)* | *-* | *-* | *-* | *Pseudomonas (12)* | *-* |
|  | *Thermus (11)* | *-* | *-* | *-* | *Thermus (44)* | *-* |
|  |
| Species | *-* | *Brevibacillus thermoruber (36)* | *Brevibacillus thermoruber (23)* | *Bacillus licheniformis (40)* | *Brevibacillus thermoruber (<0.1)* | *Bacillus licheniformis (31)* |
|  | *Staphylococcus aureus LCT-SAO (16)* | *Staphylococcus aureus LCT-SAO (23)* | *Staphylococcus aureus LCT-SAO (22)* | *Bacillus**subtilis (26)* | *Staphylococcus aureus LCT-SAO (7)* | *Bacillus subtilis (30),* |
|  | *Streptococcus pneumonia (0.5)* | *Streptococcus pneumonia (15)* | *Streptococcus pneumonia (14)* | *-* | *Streptococcus pneumonia (0.5)* | *Bacillus amyloliquefaciens (9)* |
|  | *Bacillus sp. SIT16 (7)* | *Bacillus sp. SIT16 (5)* | *Bacillus sp. SIT16 (8)* | *-* | *Bacillus sp. SIT16 (3.5)* | *-* |
|  | *Anoxybacillus sp. A3210 (<0.1)* | *Anoxybacillus sp. A3210 (6)* | *Anoxybacillus sp. A3210 (7)* | *-* | *Anoxybacillus sp. A3210 (<0.1)* | *-* |