

## Supplementary figures

Salinity gradient controls microbial community structure and assembly in coastal solar salterns

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**Running title:** Microbial community assembly in the solar saltern

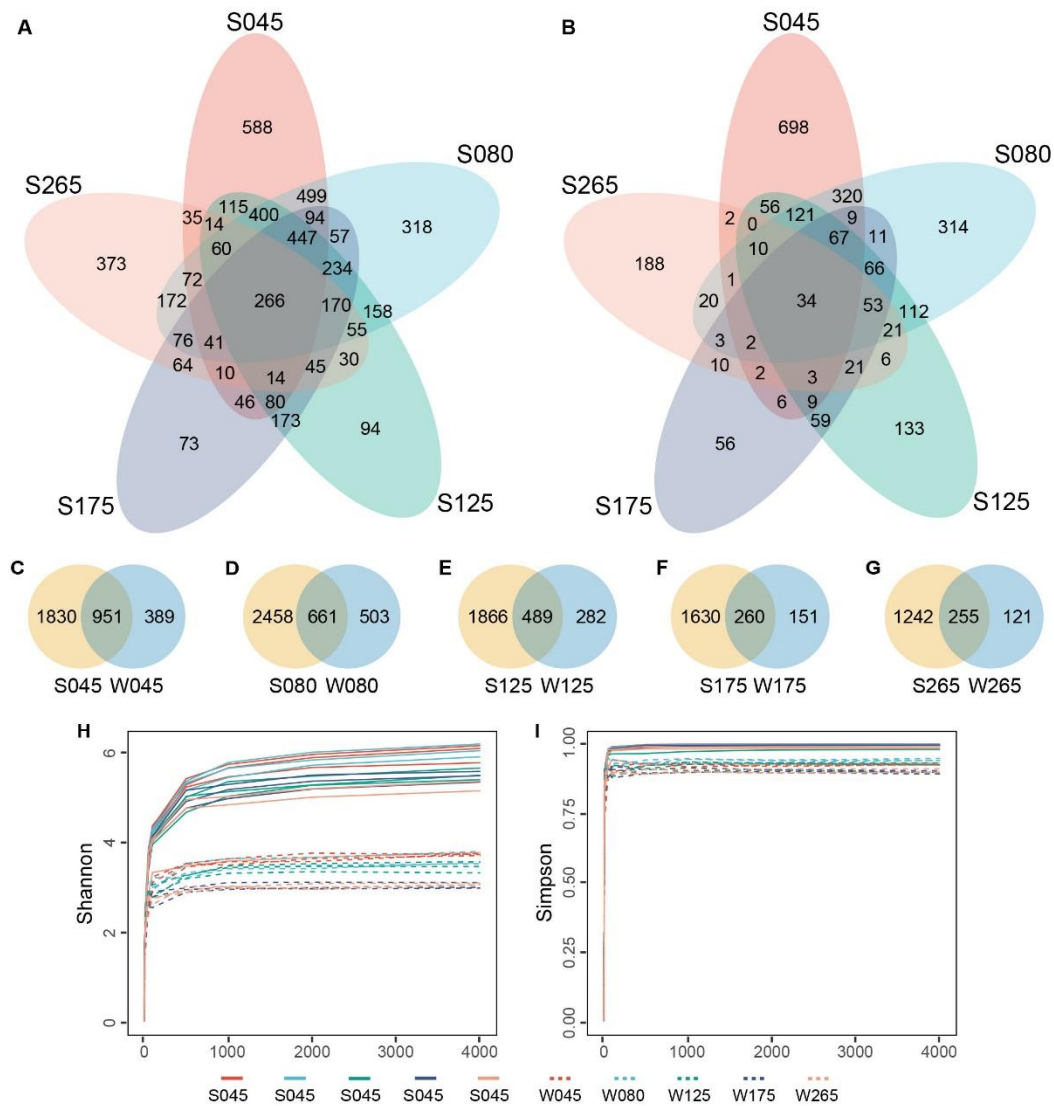
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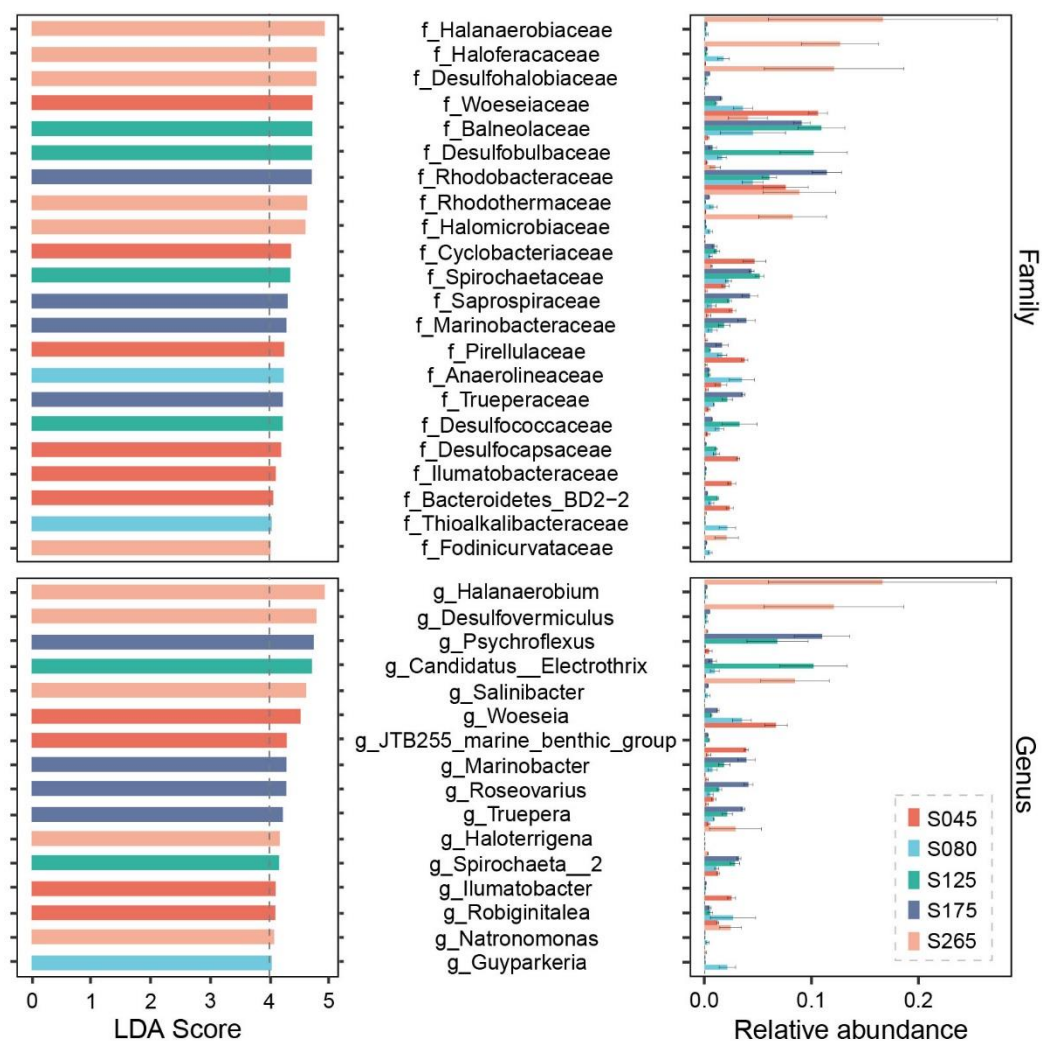
## Conflict of Interest

No conflict of interest exists in the submission of this manuscript, and the manuscript has been approved by all authors for publication.



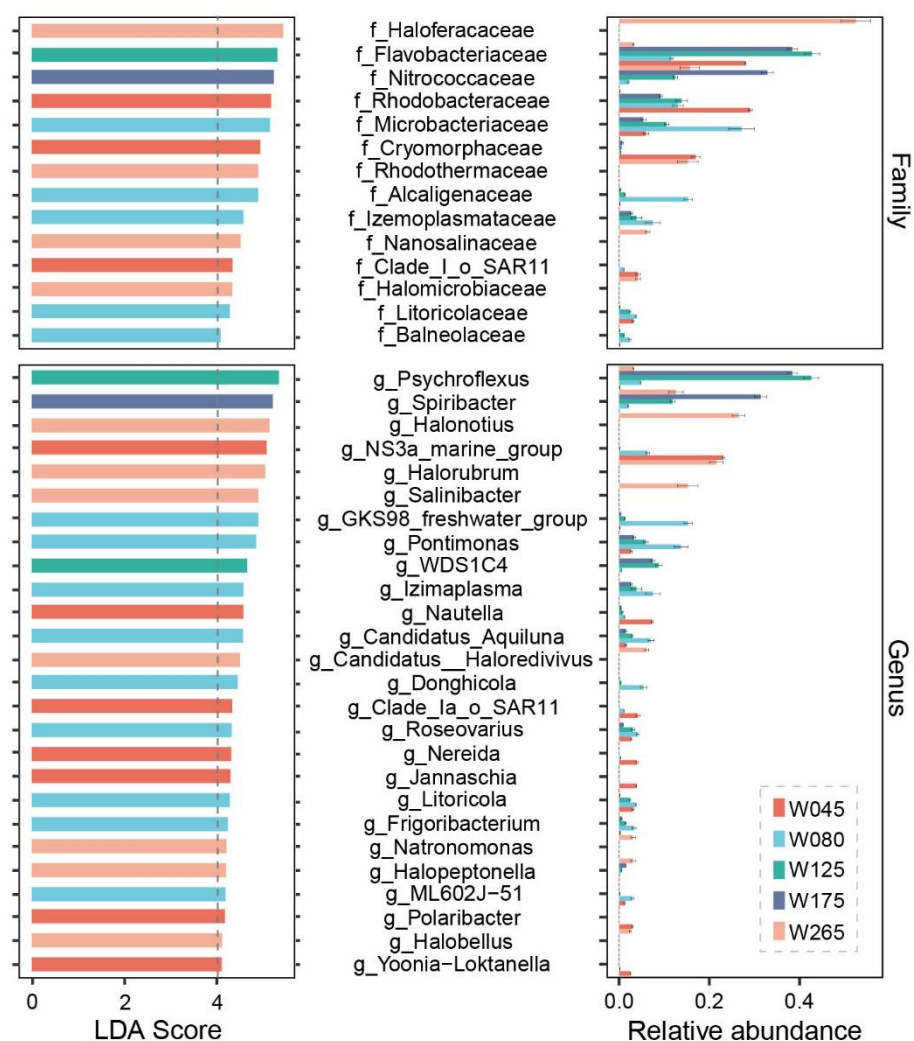
**Figure S1. Venn diagrams showing the shared and unique OTUs.**

**A-B**, Visualization of venn diagrams in sediment and water groups. **C-G**, Visualization of venn diagrams at same sampling site, comparing the shared and unique OTUs between sediment and water samples. **H-I**, Visualization of rarefaction curve on basis of Shannon and simpson index.



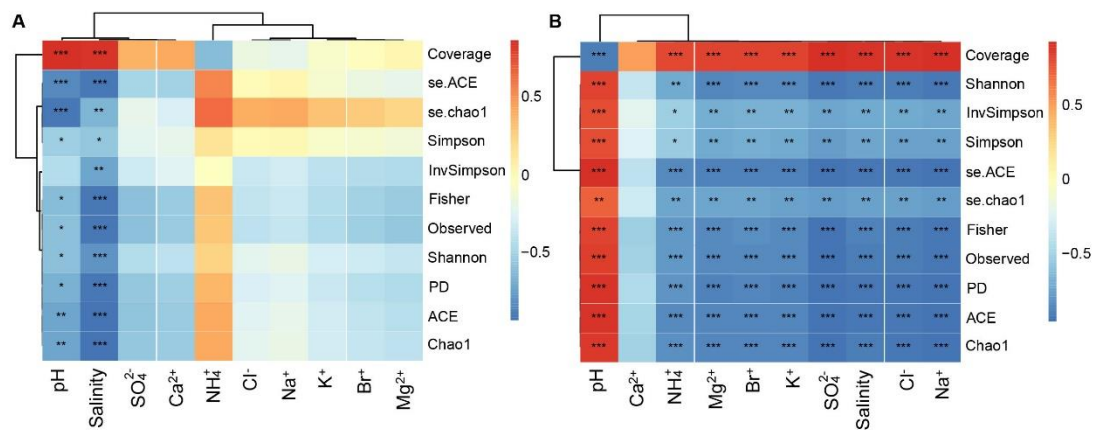
**Figure S2. Differential abundance test in sediment of salterns.**

The significant family and genus taxa, determining the community differences across groups, were confirmed by R package {microeco} on basis of LEFSe method.



**Figure S3. Differential abundance test in water of salterns.**

The significant family and genus taxa, determining the community differences across groups, were confirmed by R package {microeco} on basis of LEFSe method.



**Figure S4. The relationships between physicochemical factors and alpha diversities of prokaryotic community.**

**A-B,** The strong-related genus taxa with physicochemical factors were shown (A, sediment groups; B, water groups). Significant differences were marked. (\*  $0.01 < P \leq 0.05$ , \*\*  $0.001 < P \leq 0.01$ , \*\*\*  $P \leq 0.001$ )