Comparing the community structure of *Bacteria* and micro-*Eukarya* from the Hawaiian anchialine ecosystem during wet and dry seasons

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Table S1. Environmental variable (vectors and factors) correlations with NMDS ordination of anchialine microbial community composition from anchialine habitats on the islands of Maui and Hawaii. Significance at $P < 0.05$ based on 999 permutations is indicated by asterisks.

<table>
<thead>
<tr>
<th>Environmental Variables</th>
<th>V6 $r^2$</th>
<th>Pr($&gt;r$)</th>
<th>V9 $r^2$</th>
<th>Pr($&gt;r$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vectors</strong></td>
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<td></td>
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<td></td>
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<tr>
<td>Annual Rainfall</td>
<td>0.6884*</td>
<td>0.001</td>
<td>0.5953*</td>
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</tr>
<tr>
<td>Sample Month Rainfall</td>
<td>0.4260*</td>
<td>0.001</td>
<td>0.3302*</td>
<td>0.001</td>
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<tr>
<td>15 Month Prior Rainfall</td>
<td>0.1119*</td>
<td>0.001</td>
<td>0.0870*</td>
<td>0.001</td>
</tr>
<tr>
<td>Mean Annual Solar Radiation</td>
<td>0.6709*</td>
<td>0.001</td>
<td>0.5123*</td>
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</tr>
<tr>
<td>Salinity</td>
<td>0.6672*</td>
<td>0.001</td>
<td>0.4611*</td>
<td>0.001</td>
</tr>
<tr>
<td>Nitrite &amp; Nitrate</td>
<td>0.6402*</td>
<td>0.001</td>
<td>0.5114*</td>
<td>0.001</td>
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<tr>
<td>Phosphate</td>
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<td>0.001</td>
<td>0.1870*</td>
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<tr>
<td>Si</td>
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<td>0.001</td>
<td>0.5214*</td>
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<tr>
<td>Ammonium</td>
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<td>0.001</td>
<td>0.4094*</td>
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<td>DOC</td>
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<td>0.001</td>
<td>0.2819*</td>
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<td>TDN</td>
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<td>0.4597*</td>
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<td>TDP</td>
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<td>0.001</td>
<td>0.1978*</td>
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<tr>
<td>Latitude</td>
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<td>0.001</td>
<td>0.7539*</td>
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<tr>
<td>Longitude</td>
<td>0.9029*</td>
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<td>0.6925*</td>
<td>0.001</td>
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<tr>
<td><strong>Factors</strong></td>
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<td></td>
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<tr>
<td>Site</td>
<td>0.8157*</td>
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<td>0.7186*</td>
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<td>Island</td>
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<td>0.2343*</td>
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<td>0.028</td>
<td>0.0110</td>
<td>0.109</td>
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<td>Season Type</td>
<td>0.0045</td>
<td>0.115</td>
<td>0.0030</td>
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<td>Fish Presence</td>
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<td>0.2701*</td>
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<td>Goat Presence</td>
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<td>0.2032*</td>
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<td>Public Accessibility</td>
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<td>Sample Type</td>
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<td>0.2242*</td>
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<td>DLNR Aquifer</td>
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<td>0.6352*</td>
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<td>Watershed</td>
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<td>0.6679*</td>
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<td>Potential Warm Groundwater</td>
<td>0.2684*</td>
<td>0.001</td>
<td>0.2032*</td>
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</table>
Fig. S1. Relative abundance of phyla identified in samples grouped by site, habitat type (i.e., benthic material vs. water column), and season (i.e., wet vs. dry) using a Bacteria-specific V6 rRNA b Eukarya-biased V9 rRNA from anchialine habitats on the islands of Maui and Hawaii.
**Fig. S2.** Diversity estimates, in particular the number of observed OTUs, Shannon diversity, Inverse Simpson diversity, and Chao1 diversity, of a *Bacteria*-specific V6 rRNA, and b *Eukarya*-biased V9 rRNA from anchialine habitats on the islands of Maui and Hawaii. Samples were grouped by benthic material and water column communities within sites and sampling date, with collections in July of 2010, and March, July, and December of 2011.
Fig. S3. Non-metric Multidimensional Scaling (NMDS) ordination using the Jaccard Dissimilarity Coefficient of samples grouped by benthic material or water column microbial communities within seasons (i.e., wet vs. dry) and sites from anchialine habitats on the islands of Maui and Hawaii. Ellipses represent 95% confidence intervals grouping samples by benthic material or water column microbial communities within seasons and anchialine habitats. a Samples generated using the Bacteria-specific V6 rRNA (stress = 0.1315). b Samples generated using the Eukarya-biased V9 rRNA (stress = 0.1225).