

Fig. S1. Principal coordinates analysis using the top 500 genes with the highest expression variation between samples out of all genes passing a low counts filter, wherein a gene must have a count of 10 or greater in at least 7 out of 8 samples (pOverA ~ 0.875 , 10) in A) fertilized eggs, B) cleaving embryos, C) prawn chips, and D) early gastrulae based on sample-to-sample distance computed from genes passing a low counts filter, wherein a gene must have a count of 10 or greater in at least 7 out of 8 samples (pOverA ~ 0.875 , 10).

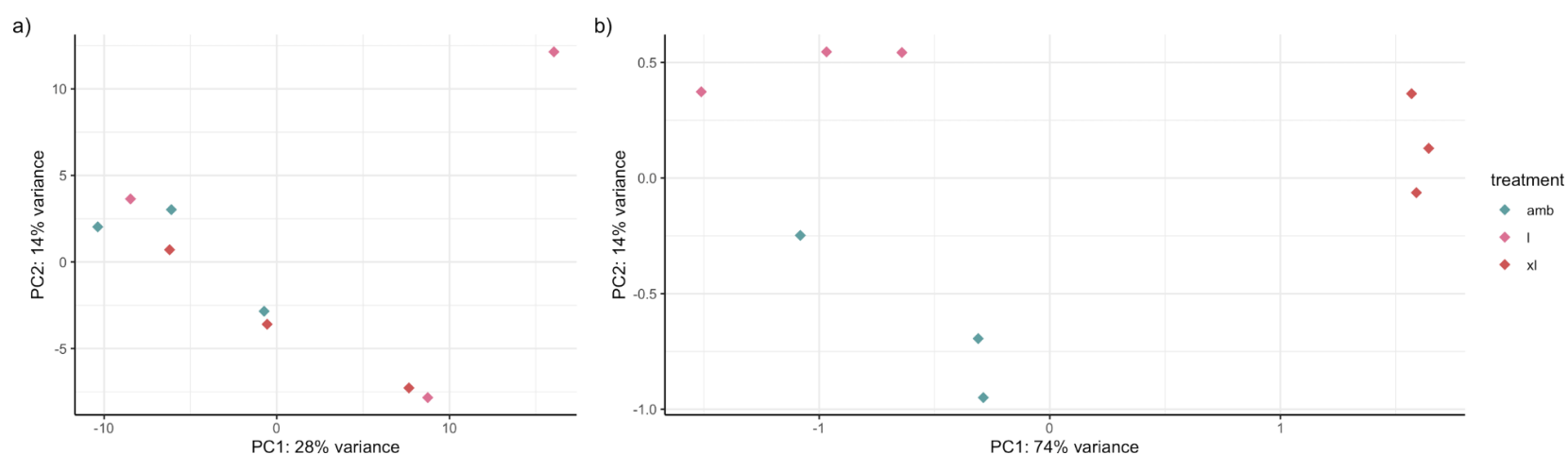


Fig. S2. Principal coordinates analyses of the symbiont genes in the planula samples. a) A principal coordinates analysis based on sample-to-sample distance computed from the top 500 genes with the highest expression variation between samples out of the 1,365 genes passing a low counts filter, wherein a gene must have a count of 10 or greater in at least 7 out of 8 samples (pOverA ~0.875, 10). b) A principal coordinates analysis based on sample-to-sample distance computed from the 29 symbiont genes differentially expressed in planula developing in different pH environments.

Table S1. Discrete measurements for temperature, salinity, and OA chemistry corresponding to Table 1.

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Table S2. Differential gene expression and k-means clustering (k=2) results for planula larvae exposed to pH 7.8 (Ambient), 7.6 (Low), and 7.3 (Xlow).

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Table S3. Gene ontology and KEGG enrichment summary statistics of the differentially-expressed genes in planula larvae exposed to pH 7.8 (Ambient), 7.6 (Low), and 7.3 (Xlow). Results were obtained using GOrseq. Cluster refers to K-means cluster, with C1 (Up) being genes up-regulated under pH 7.6 and C2 (Down) being genes down-regulated under pH 7.6 compared to Ambient. Gene ontology enrichment results include associated GOslim data and identifiers retrieved from the obo database.

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Table S4. Differential gene expression of symbionts in planula larvae exposed to pH 7.8 (Ambient), 7.6 (Low), and 7.3 (Xlow) and their Blastx local alignment search results to the NCBI non-redundant database.

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