AquaBiomics Microbiome Test Report

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About this report

Generated on: Wed Sep 06 20:33:25 2023

This report summarizes an analysis of DNA from Bacteria and Archaea in an aquarium water sample. Thousands of individual DNA molecules from each sample were sequenced, and each DNA sequence compared with DNA databases to identify its origin. The report lists the different kinds of microbes in your sample, and their relative abundance, with a special focus on beneficial and harmful microbes for the saltwater aquarium.

Please check the links provided in each section for more information. If you have any questions about this report, please check the FAQ.

Information about the sample

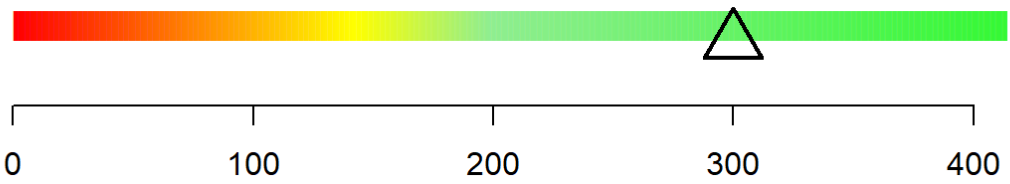
Sample ID	1002211
Sample Name	100gallon Zoa Tank second test
Tank Name	100gallon Zoa Tank
Sample Date	8/12/2023

Diversity

This score is a measurement of the number of different types of Bacteria or Archaea in the sample. Read more about Microbial Diversity here.

Diversity Score (Percentile)

300 (89)



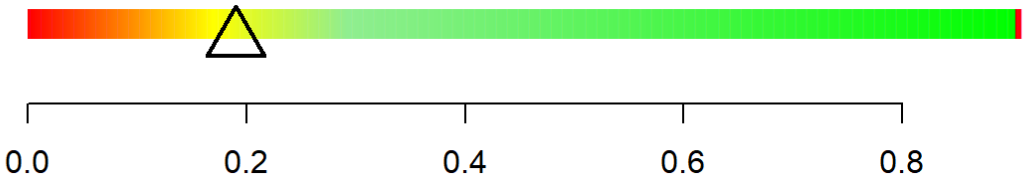
Your sample had a higher diversity than most tanks we've sampled. This is the kind of diversity we aim for in our tanks.

Balance

This score compares the microbiome in your tank with that of a typical reef tank. High scores indicate a typical community, while low scores indicate an atypical community. Read more about this score here.

Balance Score (Percentile)

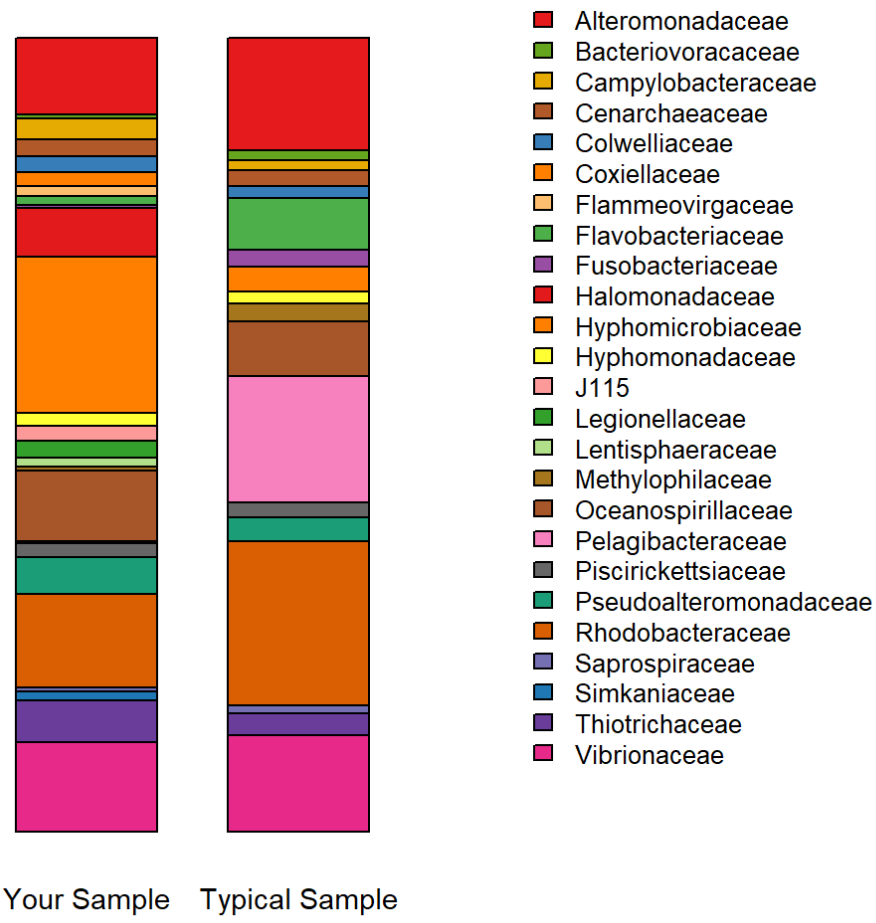
0.19 (28)



The composition of your tank's community differs from the typical reef tank community. If you're interested in increasing this score, please see these notes.

Community Composition

This figure shows the reasons for your balance score. Compare your sample with the typical community to identify families that are unusually high or low in your sample. Read more about the major families of microbes in reef tanks here.



The size of each bar indicates the relative abundance of each microbial family, coded by color. For clarity, only the families accounting for at least 1% of either community are shown here.

Your sample showed differences in the relative abundance of one or more of the major microbial families, compared with the typical reef tank. Learn more about these families here or at the links below.

Excess families (higher than typical)

Hyphomicrobiaceae

Halomonadaceae

▶ Additional details on excess families

Deficient families (lower than typical)

Pelagibacteraceae

Flavobacteriaceae

Nitrifying Community

These communities include ammonia-oxidizing Bacteria (AOB), ammonia-oxidizing Archaea (AOA), and nitrite-oxidizing Bacteria (NOB). Although present at detectable levels in most tanks, there turns out to be more variation in the levels of

these groups than many aquarists expected.

Ammonia-Oxidizing Microbes

Group	Your Level	Typical Range
Total	**0.00723**	**0.00048 - 0.05596**
Nitrosococcus	0	0 - 0
Nitrosomonadaceae	0	0 - 0.00084
Nitrososphaeraceae	0	0 - 0
Cenarchaeaceae	0.00723	0.00048 - 0.05512

Note:
Typical range is between the 10th and 90th percentiles. High levels (>50th percentile) are color coded green, intermediate levels (between 10th and 50th percentiles) are coded yellow, and low levels (< 10th percentile) are coded red.

Nitrite-Oxidizing Bacteria

Group	Your Level	Typical Range
Total	**0**	**0 - 0.00292**
Nitrobacter	0	0 - 0
Nitrococcus	0	0 - 0
Nitrotoga	0	0 - 0
Nitrospinaceae	0	0 - 0
Nitrospiraceae	0	0 - 0.00292
Nitrolancea	0	0 - 0

Note:
Typical range is between the 10th and 90th percentiles. High levels (>50th percentile) are color coded green, intermediate levels (between 10th and 50th percentiles) are coded yellow, and low levels (< 10th percentile) are coded red.

Your sample showed a healthy nitrifying community with levels similar to a typical reef tank.

Cyanobacteria

Group	Your Level	Typical Range
Total	**0**	**0 - 0**
Acaryochloridaceae	0	0 - 0
Chlorarachniophyceae	0	0 - 0
Cyanobacteriaceae	0	0 - 0
Nostocaceae	0	0 - 0
Oscillatoriaceae	0	0 - 0
Phormidiaceae	0	0 - 0
Prochloraceae	0	0 - 0
Pseudanabaenaceae	0	0 - 0
Rivulariaceae	0	0 - 0
Spirulinaceae	0	0 - 0
Schizotrichaceae	0	0 - 0
Scytonemataceae	0	0 - 0
Synechococcaceae	0	0 - 0
Xenococcaceae	0	0 - 0

Note:

Typical range is between the 10th and 90th percentiles. High levels (>90th percentile) are color coded red, intermediate levels (between 50th and 90th percentiles) are coded yellow, and low levels (< 50th percentile) are coded green.

Your sample showed little or no evidence of Cyanobacteria.

Fish Pathogens

Type	Name	Your level	Average level	Typical range	Prevalence
188	Vibrio fortis	0.905	0.4	0 - 1.6	42.8

Note:

Levels are expressed as percent of DNA sequences matching each type. Prevalence indicates the fraction of samples tested that contained each type, expressed as a percent. Type is an arbitrary ID number assigned to each unique sequence found in our database.

Your sample contained one or more Bacterial pathogens of fish. To read more about whether this is a concern, and how you might address it, please see these notes.

▶ View the full table

Coral Pathogens

None of the DNA sequences from this sample matched known coral pathogens.

▶ View the full table

Your sample contained one or more suspected pathogens of corals. To read more about whether this is a concern, and how you might address it, please see these notes.

Type	Name	Your level	Average level	Typical range	Prevalence
1103	Arcobacter sp. type 1103	0.189	0.1	0 - 0.3	13.9

Note:

Levels are expressed as percent of DNA sequences matching each type. Prevalence indicates the fraction of samples tested that contained each type, expressed as a percent. Type is an arbitrary ID number assigned to each unique sequence found in our database.

DNA analysis conducted by AquaBiomics LLC.