AQUABIOMICS

Microbiome v2.0 Test Report

SAMPLE

NAME	**Microbiome**
TANK	**UNS90LA**
COLLECTED	**5/6/2026 18:00**
SAMPLE ID	1003954

Report generated Jun 13, 2026

ABOUT THIS REPORT

This report analyzes the Bacteria and Archaea in your aquarium water sample. You'll find the different kinds of microbes present, their relative abundance, and a focused look at beneficial and harmful groups for the saltwater aquarium.

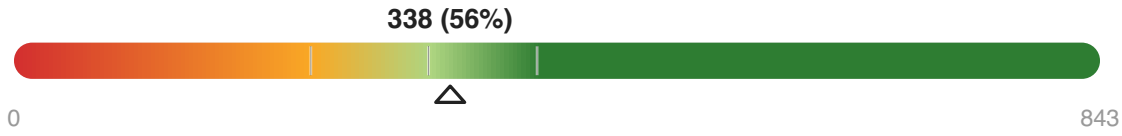
Questions? See our FAQ or read how it works.

New in Microbiome 2.0: This report includes data from a new Vibrio-specific marker that identifies *Vibrio* species with much higher resolution than the standard marker. Learn more.

Diversity

Excellent diversity.

A score of **338** places your tank in the **56th percentile** — higher than most reef tanks we've tested. This is the level of diversity we aim for.



This score measures the number of distinct types of bacteria and archaea in your sample. Higher values reflect a richer microbial community. Learn more.

Balance

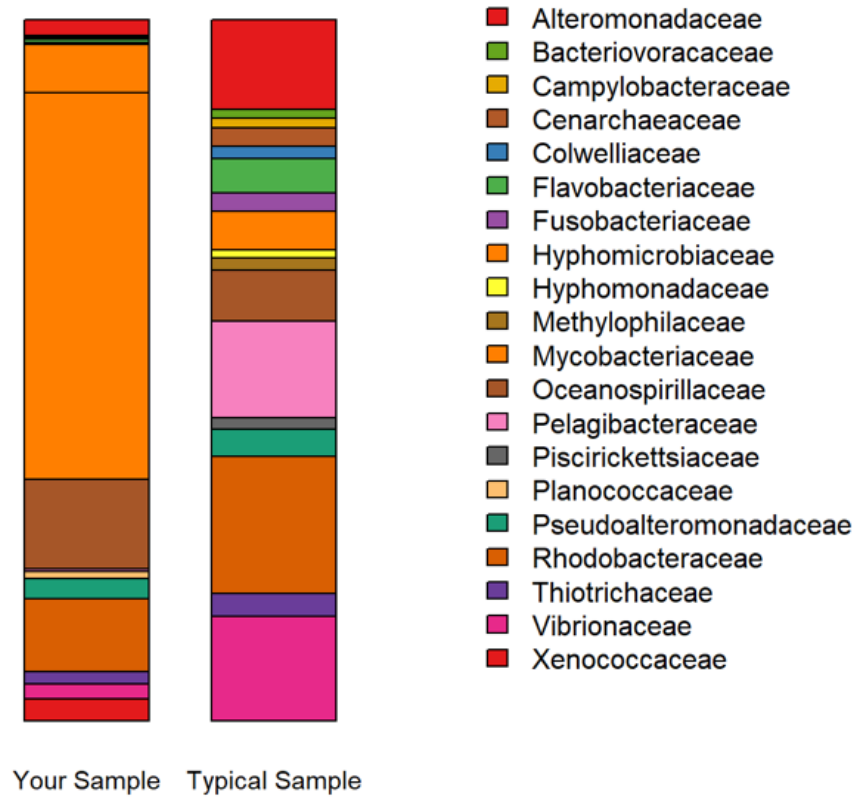
Typical community.
A score of **0.28** places your tank in the **46th percentile** — the community is reasonably similar to a mature reef tank.



This score compares the composition of your tank's microbiome with that of a typical mature reef tank. Higher scores reflect a more typical community. Learn more.

Community Composition

Community differences detected.
Your sample shows differences in the relative abundance of one or more major microbial families compared with the typical reef tank. Learn more about these families.



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. Bar size indicates relative abundance of each microbial family (color-coded). Only families accounting for ≥1% of either community are shown.

Excess families (higher than typical)

Mycobacteriaceae

▼ Additional details on excess families

Mycobacteriaceae

Type	Name (Family)	Your level (Percentile)	Prevalence
51	Mycobacterium sp. (Mycobacteriaceae)	14.34% (100)	40.2%
480	Mycobacterium sp. (Mycobacteriaceae)	0.7% (96)	17.3%
230379	Mycobacterium sp. (Mycobacteriaceae)	0.2% (100)	0.2%

181020	Mycobacterium sp. (Mycobacteriaceae)	0.05% (100)	0.9%
112879	Mycobacterium sp. (Mycobacteriaceae)	0.02% (98)	2.8%
312108	Mycobacterium sp. (Mycobacteriaceae)	0.02% (100)	0.2%
371208	Mycobacterium sp. (Mycobacteriaceae)	0.02% (100)	0.3%
384063	Mycobacterium sp. (Mycobacteriaceae)	0.02% (100)	0.1%
416898	Mycobacterium sp. (Mycobacteriaceae)	0.02% (100)	0.1%
418866	Mycobacterium sp. (Mycobacteriaceae)	0.01% (100)	0.1%
418894	Mycobacterium sp. (Mycobacteriaceae)	0.01% (100)	0.1%
418895	Mycobacterium sp. (Mycobacteriaceae)	0.01% (100)	0.1%
418896	Mycobacterium sp. (Mycobacteriaceae)	0.01% (100)	0.1%
418897	Mycobacterium sp. (Mycobacteriaceae)	0.01% (100)	0.1%

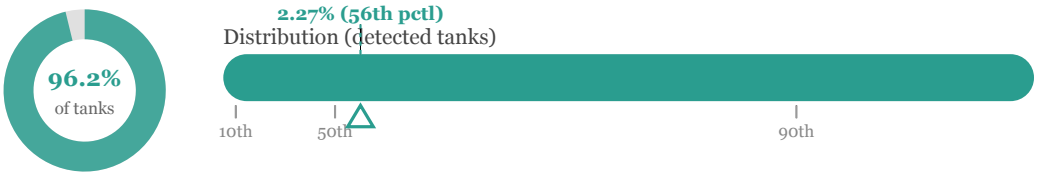
Deficient families (lower than typical)
Vibrionaceae
Pelagibacteraceae
Alteromonadaceae

Nitrifying Community

Your nitrifying community has ammonia oxidizers but is deficient in nitrite oxidizers.

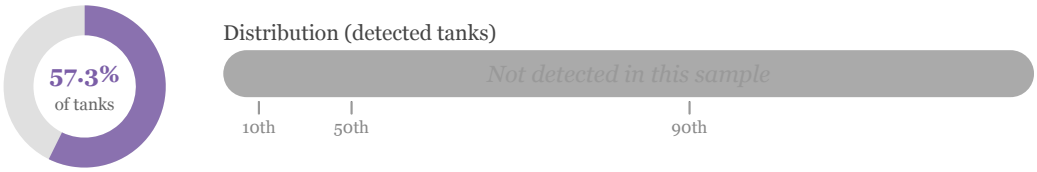
This sample showed ammonia-oxidizing microbes at the 56th percentile and no nitrite-oxidizing bacteria detected. Nitrifying microbes are detected in 96% of tanks (AOM) and 57% of tanks (NOB) in our reference dataset.

Ammonia-Oxidizing Microbes (AOM)



▶ Show taxon-level details

Nitrite-Oxidizing Bacteria (NOB)



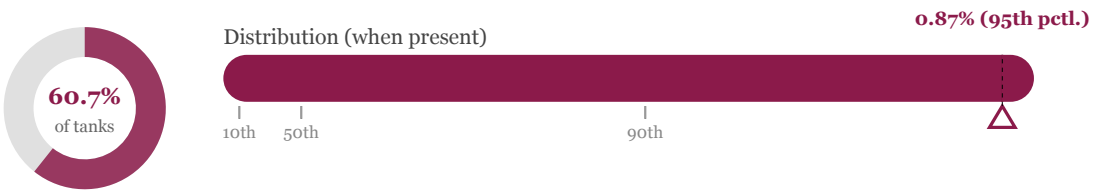
▶ Show taxon-level details

These communities include ammonia-oxidizing Bacteria (AOB), ammonia-oxidizing Archaea (AOA), and nitrite-oxidizing Bacteria (NOB). Nitrifying microbes drive the nitrogen cycle in reef tanks — converting toxic ammonia to nitrite and then to nitrate. Although detectable in most tanks, their abundance is more variable than many aquarists expect.

Cyanobacteria

Cyanobacteria are high. The families detected are not typically filamentous, but their significance in reef aquariums is not well established.

Cyanobacteria are detectable in 61% of tanks in our reference dataset. The families detected in this sample (shown in the table below) do not include well-characterized reef aquarium pathogens or nuisance filamentous types, but are also not the free-living planktonic types known to be benign. Their ecological significance in closed reef systems is not well characterized.



Note on detected cyanobacteria families: The cyanobacteria detected in this sample belong to families that are not well characterized in reef aquarium research. They do not include the filamentous mat-forming families associated with nuisance growth, nor the open-ocean planktonic families known to be benign. Consult the taxon table below for the specific families detected.

▶ Show taxon-level details

Cyanobacteria are photosynthetic bacteria found in most reef aquariums. While some types — particularly filamentous mat-forming families — are associated with nuisance growth and water quality problems, others are free-living planktonic species that are a normal component of reef water and are not a cause for concern. The graph above shows your total cyanobacteria level relative to other tanks; the table above breaks down which types were present.

Pathogen Detection

Some pathogens present at elevated levels

One or more known pathogens are detected at levels above the median for tanks we have tested. This does not necessarily indicate active disease, but is worth monitoring. See the tables below for details and our FAQ for context.

ELEVATED PATHOGENS

V. shilonii
81st pctl

V. fortis
54th pctl

Planktotellea sp. (SCTLD-associated)
77th pctl
suspected

50–75th percentile | 75–90th percentile | >90th percentile | fish pathogen | coral pathogen

Fish Pathogens

1 of 2 above median

Species	Marker	Level (%)	Percentile
Vibrio fortis	hsp60	0.060	18th pctl
Vibrio fortis	16S	0.138	54th pctl

Coral Pathogens

1 of 1 above median

Species	Marker	Level (%)	Percentile
Vibrio shilonii	hsp60	1.130	81st pctl

Suspected Coral Pathogens

1 of 1 above median

ⓘ These taxa have been associated with coral disease in some studies but direct pathogenicity has not been experimentally confirmed.

Species	Marker	Level (%)	Percentile
SCTLD-associated Planktotellea sp.	16S	0.077	77th pctl

Other Vibrio (Not fish or coral pathogens) 1 taxa, none above median

ⓘ These Vibrio species were identified by the hsp60 marker but are not established pathogens of fish or coral.

Species	Marker	Level (%)	Percentile
Vibrio shiloi	hsp60	0.030	5th pctl

This section screens your sample for known and suspected bacterial pathogens of fish and corals. Two genetic markers are used here: the standard 16S ribosomal marker used throughout the rest of the report, and also the hsp60 Vibrio marker introduced in Microbiome 2.0, which provides species-level identification within the genus *Vibrio*. Non-pathogenic *Vibrio* species detected by that marker are also reported when present.