

My First Saltwater Nano Setup

Article by: Julie

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Sparkling water and the shimmer of light on intriguing creatures; these are the constituents of a coral reef. I began my attempt to recreate a little piece of the ocean in my own home.

After much research and excellent advice from a couple of experienced reefers, I started my own 20 gallon mini reef.

Biggest decision was lighting. I initially was going metal halide which permits growth of all corals; SPS (small polyped stony), LPS (large polyped stony), and soft corals. Because of the enclosed space and the heat produced from metal halide, I went power compact. I use a Dual Satellite Power Compact (2x65w dual daylight and dual actinic) equipped with fans and a little moonlight.

At 12" tank depth, I was told by my favourite marine shop I have some serious lighting. I haven't had success with SPS yet, I tried a couple of frags; but will wait to add more when my tank is a year old in October and water conditions are pristine.

Next I chose the substrate and decided upon on a depth. Online calculators are available to determine the amount of sand required for the tank footprint. My sand bed is approximately one inch deep. I chose aragamax, sugar size which is a very fine grade of aragonite. I rinsed quite well before placing in tank. After a couple of days of dust, I used a handy aqua clear with some pillow stuffing to filter out the remaining dust particles.

I maintain my specific gravity around 1.024. I use a refractometer to measure the density of the water. I prepare a salt water solution in a plastic container (age it overnight) with the appropriate amount of salt for water changes. I verify specific gravity and temp match the parameters of the tank. My well water (PH 8) caused an algae bloom, so I stick to distilled bottle water. I top up the tank with distilled water.

Next was the live rock; I purchased the majority of my rock from a fellow hobbyist (approx 23lbs). I added another few pounds from 2 different sources; this provided me with a variety of hitchhikers. (bristleworms, crabs, feather duster worms, mantis shrimp and some soft corals).

My tank did not experience an ammonia spike, a good indicator of the excellent quality of the liverock.

Water movement is crucial in supporting the bacteria in the live rock (my tanks life support system). I use 2 maxi jet 600 pumps, and a small hang on back filter for occasional carbon use (Seachem Matrix - leaches least phosphate) To simulate waves, I use a wavemaker/timer.

I skim 24hours one week and water change the next. My skimmer is a CPR Bakpak with no media.

I add nothing to my water; nor do I plan to. Last check calcium which supports the growth of stony corals was at 490ppm. Water changes replenish lost nutrients. Nitrate readings are zero. Currently I am experiencing a red algae bloom (cyanobacteria), I believe it is related to temperature swings this summer even with the ac running. Temperature is crucial as the ocean is generally a cool place compared to our Amazonian friends habitat. PH is around 8. I have yet to test alkalinity, though I plan on buying a kit in the near future.

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Last but not least - fish. I made the mistake of not quarantining a new clownfish in the 3rd month and lost my Royal Gramma and the Clown to marine ick. I plan on adding a fish in October, inhabitants currently include a bold Scarlet Cleaner Shrimp, Blue leg Crab, Red leg crab, and a few Turbo Snails. The expropriated mantis shrimp ate some of my cleanup crew.

I added a Hawkfish at one point which dined on my shrimp.

Corals are my favorite. I have a fish tank without fish; a mini reef which is colourful and most entertaining. To my freshwater friends, my Discus taught me everything I need to know about water.

Initial Start up Cost:

Lighting: Dual Satellite Power Compact, \$210.00

Tank: Perfecto 20g plus glass top, \$58.00

Live Rock: approx 28 pounds cured, \$200

Powerheads: 2 Maxi Jet 600, \$55

Hang on Back Filter: Whisper, \$20

Sand: \$45

Distilled water: 5 bottles

Refractometer: \$40

Already cycled (priceless) with cleanup crew added \$25

Total start up cost: \$807 including tax.