



February 06, 2007

tideline aquatics Newsletter

Tideline Aquatics Store Hours

Monday – Friday 11am-7pm
Saturday 10am-6pm
Sundays 1pm-5pm

What Does It Take To Set Up A Successful Saltwater Fish Aquarium?

Now that is the million-dollar question! Setting up a saltwater aquarium is really not difficult. The choices you make when deciding to include a saltwater aquarium in your home or business can determine how successful your venture will be. Just knowing what basic components are necessary will prevent you from wasting LOTS of money.

Freshwater fish come from all parts of the world where the water parameters (pH, hardness, temperature, oxygen content, etc) vary from season to season. For this reason, freshwater fish have evolved to adapt to changes in water conditions as long as the changes are gradual. Marine fish, however, come from a reef environment that is constant. Marine fish do not have the ability to adapt to water quality that varies far from their natural environment making them more delicate to changes in water conditions. The filtration system you choose to put on your saltwater tank must be able to offer your fish this stable environment. All aquarium filtration systems should

include a biological, a mechanical and a chemical filter. Here are the components we suggest for a complete marine fish aquarium:

1. The Wet/Dry or Trickle Filter – There are several filters on the market that include wet/dry or trickle filter in the name but are simply ‘hang-on the back’ filters with a biological component like a biowheel or biofoam. Most true wet/dry filters install under the aquarium. The filter will have a chamber for holding appropriate quantities of bio-media like bio-balls that have large amounts of surface area for beneficial bacteria to grow. The bio-balls are elevated above the water where oxygen levels are high compared with the oxygen level if the media were submerged in water. Beneficial nitrifying bacteria grow in larger numbers where oxygen levels are strong. As the aquarium water trickles through the bio-balls, the beneficial bacteria that thrive there break down harmful ammonia and nitrite as quickly as the fish are producing it. If cared for properly, the bio-balls should not require any cleaning. The wet/dry filter also should have a mechanical filter. The mechanical filter is simply a filter pad and/or sponge that trap fish waste and uneaten food. Within

this wet/dry filter is a reservoir area that holds 5” 7” of water for housing another filtration component, the water pump.



WET DRY FILTER W/ DRAIN TUBE

- Marine fish come from the reef where water currents are strong and ever changing with the tides. The size of the water pump is important both for the fish and for the wet/dry filter. If water passes through the wet/dry filter too slowly or too quickly, the water may not be filtered properly. We suggest using a water pump that moves about 100gph for every 10 gallons of aquarium water in a marine fish aquarium. Purchase a reliable water pump that is UL listed. Depending on the pump, it can be mounted either externally or submerged within the reservoir area of the wet/dry filter. Also housed within the wet/dry filter should be chemical filtration.



MAGDRIVE SUBMERSIBLE WATER PUMP

- We believe that chemical filtration is nearly as important as a

biological filter. First we will talk about the protein skimmer. There are so many manufacturers of protein skimmers in our hobby but many perform poorly, require lots of maintenance, need constant adjusting and/or create annoying hissing sounds. The protein skimmer is one of THE MOST important purchases you will make. We have found two skimmer brands that are easy to use and are also quite efficient. Either AquaC brand or Coralife Super Skimmers measure up without breaking the bank. There are better skimmers but for the money both of these do an excellent job. The skimmers main purpose is to remove organics that accumulate in the water. The aquarium may appear crystal clear but still be high in organics. The accumulation of this organic material stresses delicate marine fish like tangs (surgeonfish), angelfish and butterflyfish. Protein skimmers remove this material therefore improving water quality and increasing the dissolved oxygen in the aquarium. Without a skimmer in a marine fish aquarium, one will see increased algae growth, problems with maintaining pH and increased production of niTRATES.



AQUA C SKIMMER



CORALIFE SUPER SKIMMER

We also suggest using activated carbon in a marine aquarium. Activated carbon is another organic removing product. It should be placed in a nylon bag and added to the reservoir area of the wet/dry filter where water will pass through the carbon. Activated carbon should be changed out about once per month.

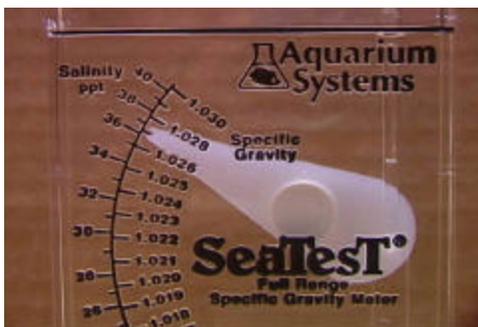


CHEMIPURE CARBON



BLACK DIAMOND CARBON

Now you know what filtration components you should have for a successful marine tank but there are several other required purchases to make your marine tank complete. First you will need a hydrometer. There are many out there but for the money, the Instant Ocean Seatest hydrometer is accurate enough to measure the salt content (salinity) of your marine aquarium. To use this hydrometer, you need to only fill it with aquarium water and read the results.



You will also need a reliable submersible water heater. The wattage of the heater will depend on how large your aquarium is and how much the temperature fluctuates in your home. Of course, this will also require you to have a thermometer to ensure that your heater is maintaining a constant temperature. As with freshwater fish, marine fish will

develop parasite problems if your aquarium temperature swings up and down.

For the bottom of the marine aquarium, you will use a quality, buffer building substrate like aragonite. The days of using crushed coral and dolomite are gone as aragonite based substrates are better at buffering the pH and alkalinity (KH) of your marine tank. Finer substrates are best as many fish sift the sand or even bury in it to sleep at night!



Now of course you will need a salt mix for your aquarium. There are so many types available and most are sufficient for a fish-only marine tank. Some salt mixes contain more buffers; some claim to dissolve more quickly but most brands will do the job.



As we have discussed, marine fish need excellent water quality. To ensure that your aquarium water is maintained properly, you will want to test the water at least once per month to monitor and correct the parameters. The test kit you choose should test for saltwater pH, ammonia, nitrite, carbonate hardness (KH) and eventually, nitrate. Water testing is of extreme importance and after a couple of times performing one, you will be a pro! Do not be intimidated as it is quite simple to monitor your water

quality. At Tideline Aquatics, we will also test your aquarium water. Just remember that if a problem were to pop up and we were closed, the cost of your beautiful saltwater fish far outweighs the mere \$20-\$30 you will spend on a test kit.



TETRA LABORETT MASTER TEST KIT - \$18.99

Well now you know what is required to get a marine aquarium for your home or office. There are other components that can be used like a UV Sterilizer, phosphate removing resins, chemical reactors, etc but they are not required to be successful.

LOCAL CLUBS / ORGANIZATIONS

Have a reef aquarium? Check out our local reef club at: www.charlestonreefers.org

Love water gardens and koi? Visit the Charleston Showa Koi Club website at: www.charlestonshowakoiclub.org

Saltwater Fish Aquarium Club – Visit CMAC’s website at: www.columbiamac.org

Fish of the Week



FANCY PLECOSTOMUS – GOLD NUGGET PLECO
Often referred to as the unflattering scum sucker, the algae eating fish group called plecostomus do not have to be just the ugly black fish sucking your aquarium clean. Though more expensive than the common plecostomus, there are so many incredibly beautiful varieties available today just like the gold nugget pleco pictured above. Now you can get a great deal on a fancy plecostomus. We currently have numerous varieties of fancy plecos in the store and with the website coupon; you can save 30% on the purchase of the pleco of your dreams! Fancy plecostomus need good water quality that is low in organics (do your partial water changes!). These fish will not tolerate acid water conditions preferring the pH to be between 7.0 – 7.8 and the water should be soft (GH no higher than 12 degrees). These fish not only eat algae but even food material that settles to the bottom of the aquarium. Supplementing their diet with a sinking wafer type food is also recommended. This is just one of the coupon specials this week at: www.tidelineaquatics.net

This Friday and Saturday!! **Bob Fenner's CMAC Presentation**

Bob Fenner, author of "The Conscientious Marine Aquarist" is doing a presentation for the Columbia Marine Aquarium Club (CMAC) on Saturday, February 10th at 6:15pm. The topics will be: Selection of Livestock in the ARC at Riverbanks Zoo, Conscientious Marine Aquarist.

There is also a "Meet Bob Fenner Dinner" on Friday, February 9th at 7:30pm. You can find all the details by going to CMAC's website at: <http://columbiamac.org>. I (Chris from Tideline) am planning on attending both events and I suggest that anyone that keeps marine fish or is interested in marine aquariums try to attend.

What's New This Week

FEEDERS: (NOW IN STOCK)

Live Black Worms, Rosy Reds, Guppies, Feeder Comets, Crayfish and Fiddler Crabs.

NOTE: We are OUT of Ghost Shrimp!!!

FRESHWATER FISH (EXPECTED ON WEDNESDAY AFTERNOON):

Dolphin Elephantnose (Rare!!), Metallic Snowball Fancy Plecostomus, Black Phantom Fancy Plecostomus, Atabapo Butterfly Fancy Plecostomus, Royal Fancy Plecostomus, Gold Nugget Fancy Plecostomus, Galaxius Fancy Plecostomus, Rummynose Tetras, Jumbo Cardinal Tetras, Yellow Pike Cichlids, Marble Hatcherfish, Silver Hatcherfish, Tiger Shovelnose Cats, Glass Cats, Nadus Nadus, Australian Jardini Arowanas, Clown Loaches, XL Fancy Chinese Goldfish, Bosemani Rainbowfish, Turquoise Rainbowfish, Gardneri Rainbow Killiefish, Blue Eye Killiefish, Hypostomus Plecostomus, Assorted Platies, Assorted Swordtails, Colombian Shark Catfish, Gold Metallic Tetras, Banded Kuhli Loaches,

RARE Flower Freshwater Stingrays, New Flying Fox Gobies, XL Black Phantom Tetras, Albino Lemon Tetras.

LIVE AQUATIC AQUARIUM PLANTS (ARRIVING FRIDAY):

Jungle Val, Contortion Val, Dwarf Sagittaria, Red Tiger Lotus, Banana Plants, Ozelot Sword Plants, Micro-Sword, Aponogeton ulvaceous, Pygmy Chain Swords, Crypt. Spiralis plugs, Crypt. Wendtii Plugs, Anacharis naja (the only legal anacharis), Crypt. Ciliata plants, Rotala indica bunches, Cool Moss Balls, Ammania, Wisteria bunches, Rotala macranda bunches, Didiplis diandre bunches, Isoetes Quill Plants, Anubius nana plants, Amazon Sword Plants.

SALTWATER FISH (ARRIVED ON MONDAY!)

Tonga Coral Beauty Angelfish, African Powder Blue Tangs, Sri Lanka Clown Tangs, African Volitan Lionfish, Indian Ocean Maroon Clownfish, Indian Ocean Ocellaris Clownfish, Sumatra Gold Bar Maroon Clownfish, Bali Eiblii Angelfish, Bali Black Nox Angelfish, Bali Majestic Angelfish, Hawaiian Kleini Butterflyfish, Java Sea Diamond Head Anthias, Indian Ocean Green Wolf Eel, Singapore Yellow Watchman Gobies, Bali Twinspot Sifter Goby, Sri Lanka Diamond Sifter Gobies, Bali Firefish Gobies, Vietnam Red Clown Gobies, Cebu Blue Midas Blennies, Indian Ocean Panther Groupers, Bali Baby Clown Groupers, Indian Ocean Spotted Dogface Puffers, Indian Ocean Common Dogface Puffers, Bali Powder Brown Tangs, Bali Yellow Mimic Tangs, Bali Niger Triggerfish, Bali Bursa Triggerfish, Bali Emerald Green Leaf Wrasses, Bali Basket Wrasses, Bali Green Bird Wrasses, Bali Whipfin Fairy Wrasses, Fiji Candy Hogfish, Indian Ocean Spotted Hawkfish, Indian Ocean Golden Pilot Jacks, Bali Foxface Rabbitfish, Indian Ocean Kauderni Cardinalfish, Australian Harlequin Tuskfish, Australian Banana Wrasses, Marshal Island Helfrichi Firefish Pair!, Christmas Island Bartlett's Anthias.

SALTWATER FISH (EXPECTED WEDNESDAY):

Atlantic Filefish, Indian Ocean Tricolor Wrasses, Indian Ocean Hifin Fairy Wrasses, Atlantic Dusky Jawfish, Sri Lanka Unicorn Tangs,

Caribbean Queen Angelfish, Caribbean French Angelfish, Indian Ocean Red Banded Fairy Wrasses, Atlantic Porcupine Pufferfish.

**SALTWATER INVERTEBRATES
(ARRIVED ON MONDAY):**

Cultured Blue Crocea Clams, Tonga Mycedium Cup Coral, Black Turbo Snails, XL Nassarius Snails, Beautiful Candy Caulestrea Corals, Indonesian Green Fungia Plate Corals, Indonesian Pink Fungia Corals, Indonesian Trachophylia Corals, Elegant Brittle Starfish, Pink Brittle Starfish, Vietnam Fromia Starfish, Java Sea Golden Banded Shrimp, Bali Sand Sifting Starfish, Chocolate Chip Starfish, Coral Banded Shrimp, Cleaner Shrimp, Bali Purple Reef Lobsters, Bali Green Saron Shrimp, Pom Pom Crabs, Green Bubble Anemones, Flame Feather Dusters, Bumble Bee Snails, Frogspawn Coral, Metallic Blue Mushroom Rocks, Devils Hand Leather Coral.

**SALTWATER INVERTEBRATES
(EXPECTED WEDNESDAY):**

Atlantic Turbin Snails, Haitian Pink Tip Anemones, Sebae Anemones, Blue and Green Ricordea Polyps, Large Blue Leg Reef Hermits, Common Brittle Starfish, Common Serpent Starfish.

Check out the new customer photo gallery on our website!!!!

If you have some good photos of your fish, reef, pond or aquarium, please email them to the webmaster at: brian@prybo.com



Beautiful Tubastrea Coral Polyps taken by our own Cheyene – soon to be displayed in our photo gallery.