

Quarantine Basics

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USAC
Authored by: Michael Porter

Preface

The investment placed on our livestock comes in many forms; The best equipment, the best food, the best salt mix etc. Yet no amount of money can replace the amount of time and effort spent in ensuring our livestock is happy. For many, when you first acquire that new fish or coral piece you want for your tank, we forget that the process still isn't complete, that our tanks might be the end game, but there's a step that still needs to be accomplished before the end of this critters journey.

For the many of our marine species (corals, fish, & inverts), they have gone from holding tank to holding tank. Captured or maricultural they change hands many a more times before they meet your plastic bag walking out the fish store. Along this journey comes the potential of introduction into many diseases or parasites along the way.

Keep in mind this is a lucrative game for dealers and distributors and you're going to be hard pressed to find a facility that puts in the time and effort in ensuring their livestock is 100% pest free, money moves fast and so does the product……That means it's all up to you, the hobbyist. As much as you've invested into your tanks, it is also the time to take care of that investment up front with your new species prior to them reaching your tank. Quarantining is one of the best methods to ensure both your new critter and current livestock meet with a happy outcome. It will cost less than you can imagine and could end up saving you hundreds to thousands of dollars in the long run, notwithstanding the frustration that can accompany it.

Coral Quarantining



Fig 1** Photo credit; Michael Porter

So, you got that fire piece you've been after for the longest time. To ensure it has been given the best chance of survival in your tank and is not going to bring something detrimental in, there should be a critical next step. So, lets Quarantine (QT)… But first let's go over the why.

There are 2 primary advantages to instituting a QT procedure.

1. Providing a place to **monitor** and **identify** pests or problems that made it past a dip procedure.
2. Providing an isolated environment to treat infected corals with **treatments not applicable to a display tank** and its inhabitants.

By having an isolated environment, you can visually inspect daily for any bad creatures that might have made it past a dip or hatched via eggs. Human error in the dipping process or immunity to the current dip are primary factors. Additionally, there is the ability to perform procedures on the outside of your display tank without having any adverse or expensive effects. Treatments are cheaper to administer in a low volume environment as opposed to full DT tank treatments. Additionally, the livestock in a display tank might not be able to handle the treatments for the pests you've introduced, and you'll have to remove or deal with the sacrifice of the treatment plan. Catching it early in a QT environment, you can save time, money, & losses in the long run.

The disadvantage, the coral won't be in your display right away. The coral might lose color temporarily due to lighting changes or treatments needed.

Prep Work-It doesn't take much to have a simple quarantine setup, $50 tops if you're inclined to buy new, and you'll have a little set-up in order to handle most applications. Here's is a list of basic components.

1-10g tank (or larger)
1-Hang On the Back (HOB) filter
1- 50 watt heater (or applicable size to your tank)
1-Cheap light (will discuss why later)
1-cheap clean platform to elevate corals off the bottom of the tank. (this is so you can see anything on the floor)

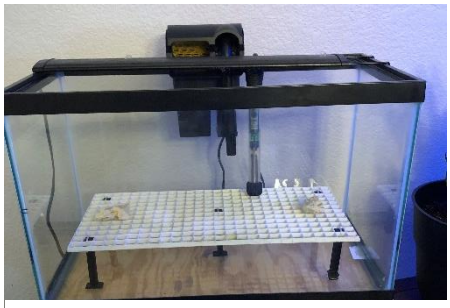


Fig 2** Photo credit; Michael Porter

Now you got your basic setup it's time to do a water change and fill her up. Being you'll be acclimating your new friend to the same tank conditions as your display tank, the easiest and most effective way to ensure the stress of different water parameters doesn't change too much is to fill the QT with water from there. Make enough excess as well for any dip procedures you incorporate prior to QTing.

Acclimation and Dips-Ensure to take your time to acclimate the coral. First step is to temperature acclimate the coral to your tanks water. Both QT and DT should be set at the same temperature. Standard is about 30 mins at the minimum.



Fig 3** Photo credit: Michael Porter

Next drip acclimate the coral until you get at least a 50/50 mixture. Changes in water chemistry will happen as your DT and the tank its coming from differ, so take your time at least over the course of 30 mins to get to that mixture.

Dipping corals comes with its own challenges as well, primarily the amount of different types of treatments offered in the market. There are additional practices of using chemicals not associated to treatments of corals which are used in the hobby. These are noted in the forums as anecdotal, which has shown to relieve the corals of

unwanted pests without any adverse reactions to the coral itself (use at your own risk). Many people use a combination of dips as well (in separate dipping containers) to target different types of pests. Whatever you choose it's good to know exactly what creatures you have a possibility of seeing so that way you can seek the correct treatment. The dip you use might not kill the target species and if you do in fact run a QT, you might end up seeing them and can address it with the correct treatment. At the very least incorporating a dip procedure is a best practice to kill unwanted pests and bacteria on a newly acquired corals.



Fig 4** Photo credit: Michael Porter


Fig 5** Photo credit: Michael Porter

Ensure you have not only the dip but the tools and proper protective equipment to handle the corals. The basis for a "dip station" should consist of the following.

- Two containers (one for the dip solution, the other for a rinse).
- A low flow pump or turkey baster to agitate the dip solution.
- A measured container to ensure you have the proper amount of water for the dip solution (follow instructions of your preferred dip).
- Syringes to measure the appropriate amount of dip solution to add. (you can get these for free at walgreens)
- Frag plugs, a razor, and glue if you choose to remount.
- Nitrile (no powder) gloves or tongs to grab the corals with while in the solution (dip solutions can be bad for you…).
- A magnifying glass to inspect used dip solution after you've successfully treated your corals.

Once you have all your tools here's a step by step to doing a dip procedure. You may adjust how you see fit.

1-Select your dip type, fill both containers with water, add frags to the "dip" container.



Fig 6** Photo credit: Michael Porter

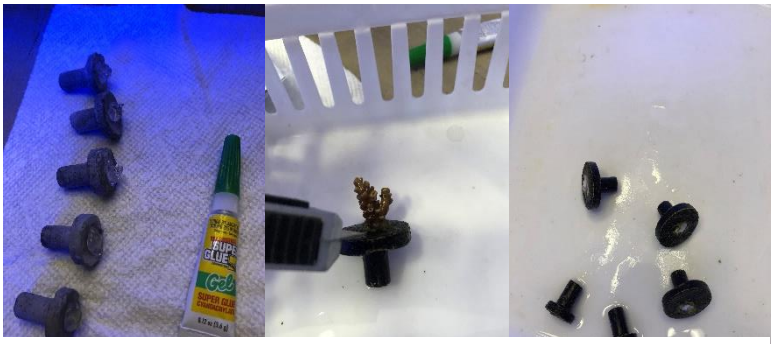


Fig 7** Photo credit: Michael Porter

2-Prep frag plugs with glue if you are going to change out the plugs and proceed to remove from old plugs. Do not remount. Benefit to this is any pests that might be hiding inside the glue attached to the coral will then be exposed to the coming dip. Once complete inspect old plugs for eggs or unwanted pests (this is where a magnifying glass comes in handy). Discard as you will not dip these plugs to avoid risk.

3-Add proper amount of dip to the "dip" container. Ensure to agitate the water with a pump or turkey baster to get the dip going throughout the coral. Most dips have a cycle time so treat as directed for the dips to be most effective.



Fig 8** Photo credit: Michael Porter

4-Move frags to the clean solution, agitate to rinse, remount onto new plugs if needed, and proceed to move to QT.



Fig 9** Photo credit: Michael Porter

Inspect dip solution for any die off to see if any unwanted pests might have been present. Key to this is knowing the pest in order to determine future treatments and seeing if anything might have been "stunned" only by the treatment. If there is a case of a pest being "stunned" another dip regiment with a different dip solution might be required.

The Quarantine-Once a dip treatment is complete and your coral is in Qt, the fun part begins…Observation. Your observation period can differ depending on the circumstance but at the minimum Qt should last for 2 weeks. This allows ample time for a pests eggs to hatch. Be thorough in your observations and inspect for bite marks on the tissue or pests still wandering and causing harm to your coral. Pay close attention to the

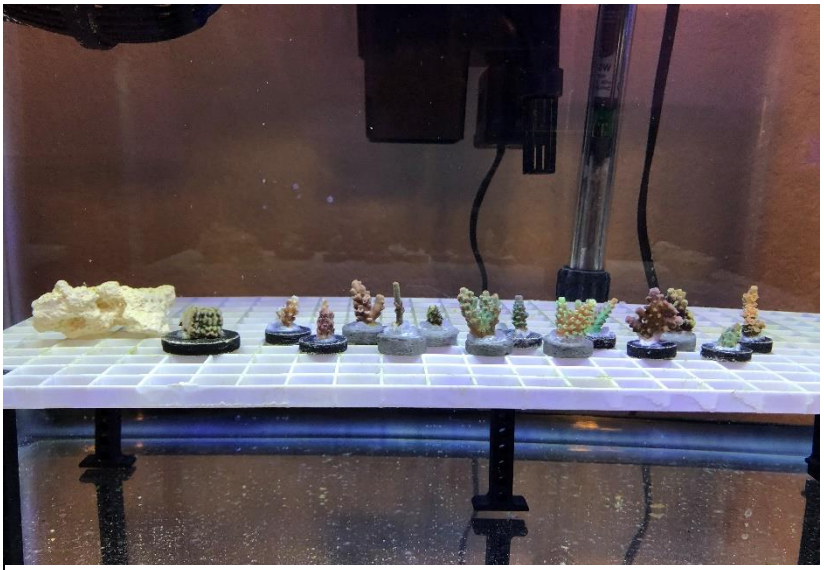


Fig 10** Photo credit: Michael Porter

bases.

Water changes with your DT throughout this period can keep the chemistry as close as possible to your display. 10% twice a week should suffice.

Additionally, if you find a bug in your QT you now have the advantage of doing successive dips without removing a newly mounted coral in your tank. You can also proceed with additional medications administered to the QT for a treatment plan. There are many chemicals out there that can used for just this occasion and you'll have a more applicable environment in order to do just that without having any dramatic effects on your display. There is a relief in that if something does pop up during this regiment, you were able to catch it prior to entering your display.

A couple key recommendations

- Carbon is often a key in removing chemical treatments so do keep filters on hand if you need to dose your QT.
- Research the Dips on the market and what they are effective at treating, as well as be informed on the types of pests out there. Pests can migrate from coral to coral even though they do not attack the specific species you have purchased, thus disregarding them throughout the process has the potential to introduce them to your display where they might find a healthy snack.
- Do not add more corals in the middle of a Quarantine treatment. Adding corals, a week or two later, might mix results of identifying pests. This would render your qt treatment to start all over from the exact day you added new corals, prolonging the treatment.
- Lighting is a choice issue in QT, with the chemicals comes stress and corals might lose colors. The low light doesn't promote large algae issues as well. Colors can always be gained back once in the display…look at is as a long stormy two weeks in the ocean, it happens, and this is just a small storm in the big scheme of getting a healthy piece into your display.