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Planning Is Necessary Before You Take The Plunge by Eric V. Van Der Hope Copyright © 2004 ReefKeepingBasics.com

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You cannot underestimate the value of planning when it comes to starting a Saltwater Fish/ Reef Environment as a hobby . . .

There is simply nothing more important than that!

It's so easy to get excited about this wonderful hobby after seeing all the beautiful fish and corals at your LFS (Local Fish Store). So it's no surprise that many people, without any thought of taking one step at -a-time, purchase what they see. There are fish enthusiasts that found their way into this hobby exactly this way . . . However, many of them discovered that they could have spent less Money, less Time and less Effort if they simply planned ahead.

After the initial purchase is made, it's taken home and set up. After a bit of time has passed and more thought has been put into it, it's discovered that there is inadequate lighting for the system. The filtration system would not be large enough to sustain the specific marine environment preferred. Because of inaccurate advice from a LFS employee, some expensive fish were purchased, resulting in their dying almost immediately after being introduced into the tank (so obviously the proper time for the tank to be cycled was not thought throug h).

Because of Poor Planning, this new fish hobbyist was doomed from the start!

There is a definite plan of action that has to be implemented before starting in this hobby.

First and foremost - how much money can you afford to put into this hobby? This one decision alone could be the deciding factor to start or not . . .

Anyone involved in this hobby must be well informed of what's involved. Not one opinion should be investigated from a good source but a couple. Getting the same advice from reliable sources could be a start of a good decision - Do not be afraid to ask questions as the more you learn the more you can put to good use.

Once enough thought is put into the size of the tank wished for, decide where it should go. The location of the tank is very important as some may not fully realize . . .

The tank should be close to a water source. It also should not be placed in the middle of a room if on a second floor or above (depending on size of tank, saltwater is more dense than plain water and with all the base rock, live rock, sand, etc that's placed in the tank - it's very, very heavy). Proper support is needed to withstand this. Placing a tank along a wall would be a recommended if there is not proper support underneath the center of a room or apart ment.

Since there will be a need for energy to power filters, pumps, heaters, lights, etc, a proper power source is needed nearby. Also - the tank should not be in direct sunlight.

Starting and then maintaining a stable saltwater fish/reef environment ta kes a good amount of time, dedication and more importantly it will take patience.

You cannot haphazardly throw stuff together thinking everything will be o.k Without the proper steps, without the proper investigation and research, without the proper patience, will prevent the enjoyment of getting the rewards of a beautiful and colorful marine environment.

Once a decision is made on the setup that is desired - purchase the necessary components. Through investigation, research, and much thought - you should have a good idea of where to 'shop'. In most cases you may already know that you can probably get a better deal for a particular component from a different dealer. That fine . . . This is important - do not buy your supplies without first finding out from the dealer if he will agree to discounting the purchase. In most cases, the LFS will agree to a substantial discount due in part to acquire you as a customer. So if you are going to buy a whole setup, there should be a considerable mark-down . . . The dealer is benefiting from your purchase no matter what - so barter and get the price down! Also, look for 'starter' packages that have already been marked down. Never buy the 'sticker' price!

Now that everything has been purchased, assembling everything is ne xt. The next few mini-steps are essential to guarantee a successful start. Make sure tank is level on the stand. Install all your filters and pumps after rinsing components. Prepare the water with the salt-mix you purchased. A good rule of thumb in mixing water/salt would be approx. 1.5 pounds of salt-mix to 5 gallons of freshwater. Your specific gravity should be around 1.022 to 1.025 (Don't try measuring the water until everything is completely dissolved). Start turning your pumps and filters on to help circulate the saltwater you've mixed once the proper level has been reached in the aquarium (Do not fill water to the top level of tank since the sand, base rock, live rock or other aquascaping still has not be put into the tank).

Add your substrate - sand, base rock, live rock, etc. The tank water will be cloudy, this is normal. Give it time to settle down. The guidelines to the amount of

rock you chose to put into the tank can be generally said as being 1 to 2 pounds of live rock per gallon of aquarium capacity. However, much base rock should be used to build a good foundation for the live rock to sit on. Probably, the tank should be filled about a third of the way with enough space between for circulation of water currents.

Now 'seed' your tank. You've a ctually done this by putting live rock into the tank. However, to speed this process up, you can use other alternatives such as live sand, other sources of bacterial growth such as filter media from established tanks or anything else that has beneficial mi crobes in it (The goal is to obtain this from healthy, long-established aquariums). Then you may start using your lights to help promote growth. In order to feed this bacteria - you need a source of food or other sources of ammonia . . .

You can use a couple of hardy damsels to provide a more lively scenario to your tank instead of looking into an 'empty' tank. The damsels are hardy fish and should be the only fish you use to get the tank 'seeded' and to begin your tank 'cycle'. These fish will help produce the needed ammonia from their waste products. There are other ways to 'seed' the tank such as introducing a raw shrimp or other scrap of raw fish. All of these will add to the 'cycle' of the tank by producing larger amounts of ammonia into the system.

It's very important to wait for the 'cycle' of the tank to complete before anything else is added to your tank in the form of fish or corals. Unnecessary death to your fish pets could be eliminated if you take time to wait for the complete nitrogen cycle. This could take as fast as 3 weeks or up to 8 weeks to get established properly.

Once you have established your tank, slowly stock your tank and never add too much at one time. Every time you introduce a new tank -mate - you've begun

another cycle where more ammonia, nitrites and nitrates are produced which have effect on all fish and corals at different levels.

Once the tank is established, then there are steps necessary to take to 'Maintain' a balanced home for your fish pets which includes regular water changes, the adding of nutrients and trace elements, the constant cleaning of skimmer, regular cleaning of algae and so forth. Much of what you do here, if taken care of regularly, will make the viewing of this beautiful marine environment most enjoyable and also guarantee a high success rate of keeping a high quality tank.

In summary, the following is strongly encouraged to help guarantee a successful and fulfilling start to this marine hobby.

It's important to know that these are just guidelines and not 'written in stone'. There are variations to these steps - but if put into practice, these steps will be an excellent stepping stool towards success.

1. Do your homework - Learn, investigate and implement (Invest in some good saltwater fish/reef keeping reference books to get yourself educated with a proper foundation).

2. Affordability - How much are you willing to spend on this hobby? You need to project some figures so that you can realistically know if this is a good or bad idea to start in the first place. There is the initial cost of the tank setup and then there will be costs on a regular basis to maintain your tank.

3. Develop a Plan of Action.

4. Decide on the type of setup you wish to take care of (Fish only, Fish and Invertebrate, Reef only, Reef/Fish combination). The cost of the system will vary depending on the system that is chosen. For example, the extreme lighting

needed for reef setups would be unnecessary for a Fish Only system (buying proper lights for a reef tank is necessary for the growth and survival of corals and tends to be more expensive). Filtration as well as other factors will set the standards for how extensive your setup will be and how much planning ahead you will need to think of.

5. Placement/location of the tank (Once a tank is full - you should NOT think of moving it! The tank, as well as tank stand, will experience unnecessary stress and could easily crack, break or loose it's structural integrity.

- Tank should be near power source, water supply and out of direct sun light.

- It's also very important that if the tank is on a 2nd story or higher floor, proper support should be investigated. Do not put a fish tank directly in the middle of the room. It's recommended that since there is more support along the walls of a room - this is the safest place for the tank to be placed unless proper support is below.

6. Once you decide on your system - you know what is needed to meet the requirements of your tank. Purchase the necessary equipment taking considerable measures to make sure you get the best discounted price on all components.

7. Assemble tank, stand, components and other accessories.

8. Mix freshwater/salt-mix together. Turn on pumps and filters to aide in the circulation and dissolving of salt-mix as well as the introduction of oxygen into the water.

9. Add substrate - the sand, base rock, live rock, etc. to the tank (This is assuming that it's 'cured' live rock).

10. Begin the 'seeding' of your tank (Assuming that the previous step did not include live sand or live rock, you must now introduce something into the tank that will begin 'cycling' your tank such as filter media from an established tank. This will introduce the beneficial microbes that will help in the 'cycle' of your tank.

11. Add a source for the microbes to begin their 'job'. Add a few hardy damsels, or a raw shrimp or other scrap of raw fish to introduce more ammonia into the tank.

12. Completion of a cycle can take up to 3 to 8 weeks to finish. Only then should you think of introducing more fish or corals into your tank. Remember, that each time you introduce a new tank-mate - you've essentially started another nitrogen cycle. High level of ammonia and Nitrites can be deadly for less hardy fish and corals.

13. After the tank is properly set up and is running smoothly, it's a necessity to test the water regularly until you have cycled your tank. Even after the tank has been cycled, regular testing must be implemented. In order to do this properly you must have the proper test kits (Make sure the test kits are not out of date!). Maintaining proper levels of Ammonia, Nitrites, Nitrates, pH, the Calcium levels and Phosphate levels cannot be underestimated.

14. Once a decision is made on the type of system to maintain, careful choosing of the inhabitants of your future tank is most important. Not all fish, Invertebrate and coral live in harmony! Investigate what lives well together and what does not. Then, proper steps can be implemented when introducing to a system even on what order the fish or corals are introduced into the tank. Success of the tank also comes down to the compatibility of the inhabitants.

15. Setting up a tank is a large part of this hobby. However, it's the maintaining of this environment at acceptable levels that will require regula r work and patience.

Maintenance does vary between systems, however this one principle does not differ in that all systems need a tune - up so-to-speak. In other words, a regular schedule of maintaining the tank system should be and is the #1 Priority.

16. Now that the tank is up and running - the easiest part of this hobby comes to fruition; Enjoying the splendor and beauty of a tranquil mini -ocean.

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Eric V. Van Der Hope is the Publisher and Author of the book <u>"Reef Keeping Basics - Successful Reef Management"</u> as well as the editor of the popular and informative newsletter <u>"Reef Keeping Basics - the eZine/Blog"</u> - A Newsletter For The Serious Reef Keeping & Saltwater Fish Hobbyist. Would You Like to Discover Exactly How to Build A Perfect Aquatic Life Environment For Your Marine Fish Pets - Without Having to Do It the Hard Way!? Then simply visit his website and learn how you can: <u>http://www.reefkeepingbasics.com/</u>

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