



Keeping Clown Fish Care Sheet

What are Clown fish?

Clown fish are colourful, cute and sometimes amusing inhabitants of tropical reefs from several places around the world, including the Great Barrier Reef. They are a hardy fish, and with the proper aquarium and care, can be safely kept in the home for many years.

Clown fish like "Nemo" are usually 2-8cm long. They have an unusual symbiotic relationship with sea anemone in the wild. While other fish may be stung and killed by the anemone's tentacles, Clown fish are immune, living amongst the tentacles. They feed on the anemone's leftovers, and can even bring it food. They are social fish, and as such it is recommended that at least two are kept in aquariums.

In the past, Clown fish for aquariums have always been caught in the wild from the reef. Today there are several Clown fish farms around Australia. It is strongly recommended that anyone wishing to keep Clown fish in a home aquarium insist upon aquacultured, or captive bred Clown fish. Captive bred fish do not create an impact on the natural environment, they are healthier and hardier, there is little chance that you would buy them diseased or sick, and they are not as fussy eaters.

Introduction to keeping

In the wild, Clown fish have a small territory, and therefore can survive in smaller home aquariums, but for a number of various reasons, bigger aquariums are better. As a minimum, a Clown aquarium should be approximately 40 litres; 70 litres or above is recommended.

Setting up a marine aquarium is far more complex than freshwater, and mistakes can be deadly to everything in the tank. It is therefore very important that a marine aquarist is well informed, and committed to spending the time, effort and money to do it right.

Below is a list of equipment that you will need as a minimum to keep Clown fish:

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| • Tank | at least 40 litres , preferably over 70 litres | • Heating | 100watts of heating per 50litres of water |
| • Water | either natural sea water (preferable), or a specialised artificial sea salt mix with a water ager | • Lighting | one or more fluorescent lights |
| • Sand | small grained sea sand or crushed marble | • Thermometer | to test the temperature |
| • Rock | 1 kg of live rock per 20litres of water at least | • Hydrometer | to test the water salinity |
| • Filter | almost any kind of mechanical filter will do (optional) | • Nitrite test kit | to test the level of nitrites in the water |
| • Circulation | a small (100 litre per hour) internal pump to keep the water moving | • pH test | to test the pH of the water |

Setting up the aquarium

- Clean the tank of dust and dirt, and position it where it will be kept. Ensure that the tank will not be in direct sunlight for very long at any time.
- It is very important to not that you never, ever use any cleaning products in, on or around your tank, as these chemicals can and will kill your fish. Always wash your hands thoroughly in water only before putting your hand in the tank, and do not use any aerosols, flea bombs or similar products in the same room as the tank.
- Add sand to a depth of approximately 3-6cm average depth.
- Pour seawater or artificial sea salt mixed with aged tap water to the tank, leaving about 5cm from the top (this is for the displacement of everything that is to be put into the tank).
- Put in the heater, and only when it is submerged, turn it on and set it to 26 degrees Celsius.
- Add the filter, and turn it on.
- Add the internal circulation pump, and turn it on.
- Let the cloudiness settle for a couple of hours, and ensure that the tank temperature and salinity levels are correct. Clown fish require the salinity to be 1.026.
- Add the live rock and put in a 1cm cube portion of food.
- The food will initially feed the natural bacterial colony. You may keep the light on for approximately eight hours per day, but this is not essential until you add your fish.
- Test the nitrite levels daily. For the first several days, the nitrites should be zero. You will eventually see a very high reading. After this, the nitrite level will slowly drop over several days or weeks. This process is known as the nitrogen cycle or cycling (see below).
- Cycling will take one to four weeks, and you will not be able to put any living things into the tank until the nitrite reading is zero. This is because the levels of poisonous chemicals in the tank could be fatal to them.
- Some fish shops can actually sell a tank pre-cycled. This can speed up the process of setting up your aquarium.
- When the nitrites have returned to zero, it is safe to add the fish.
- You may also wish to add 5-10 algae eating snails at this time to help control algae growth.

The Nitrogen cycle

The most important component of a successful marine tank is a healthy bacteria colony. These bacteria thrive on exactly the chemicals which cause problems in your tank, and the end byproducts are naturally removed, leaving your water safe for fish and other inhabitants. This is known as biological filtration. The bacteria reside on the live rock that you add to the tank, and will quickly spread to the sand bed, along with worms and other helpful creatures.

In order for the biological filter to become established, it must first go through the nitrogen cycle. When you add the live rock to the tank, some of the living things will die and decompose, resulting in a high level of ammonia in the water. Ammonia is poisonous to most creatures. It is important to have a big "spike" in ammonia to start the cycle, thus the addition of the extra food.

In response to the plentiful new ammonia supply, ammonia-eating bacteria thrive. As these bacteria consume the ammonia over a couple of days, they create nitrites as waste. Nitrites are also poisonous to most creatures, and need to be dealt with. Fortunately, other bacteria can help us out.

These bacteria consume nitrites and convert them into nitrates. Nitrates aren't dangerous for fish, but corals and other invertebrates don't like them. Once the nitrites have been converted, then it is safe to add your Clown fish. The last step of the biological filter is converting nitrates into Nitrogen gas.

Do not consider adding corals until several months later to ensure that the biological filter is fully capable of converting all wastes in the tank to harmless nitrogen gas.

While your tank is 'cycling', you will notice a lot of growth of algae. This is normal, and you will probably see 'waves' of different types of algae come and go in the first several months of the tank's life. Algae blooms can be a problem from time to time, but they are rarely dangerous, and good advice from experienced tank keepers will help you deal with the problem.

Maintaining your tank

Marine aquariums require ongoing maintenance. This is to ensure that the conditions in the tank are kept constant, and that the water quality is kept at its best level possible. The regular tank maintenance routine will include the following:

Daily:

- check temperature
- check that the circulation and filtration pumps are functioning
- feed the tank a small amount of food

Weekly:

- drain 10-20% of the tank water and replace with new sea water or mixed and aged tap water which has been heated to the same temperature as the tank (you may need a second heater to do this)
- clean the physical filter by rinsing it in the removed tank water
- top up the tank with aged tap water to make up for any evaporation
- test the pH levels
- for a week after any new tank addition test nitrite levels. If they are high, you will need to do daily 10-20% water changes until they drop

Other tank inhabitants

Clown fish live in coral reefs, one of the most fragile and diverse natural environments in the world. Corals are exceptionally beautiful, but also can be exceptionally hard to keep. If you wish to keep some corals in your tank with your Clown fish, wait until you have been running your tank successfully for several months, then gradually add some, one at a time, over a number of months. Ask your aquarium to show you hardy, easy to keep corals that tolerate low light levels, such as corallimorphs and zooanthids. We recommend that if you intend to keep corals of any kind, that you thoroughly research the corals you want to keep, so you will know how to care for them. You can find lots of information through the contact addresses below.

If your tank is under 70 litres, you will not be able to add any more fish. Adding any more fish to your tank can place a heavy load on the tank, and too many fish can quickly foul the water and poison the inhabitants. If you have a larger tank, you may consider adding only small, non-aggressive fish, and only one at a time. Be sure to thoroughly research any fish additions to your tank and be certain that it is the right thing to do. Again, use the resources listed below.

References to resources

This care sheet cannot cover every topic related to keeping a marine aquarium. There are important issues that you will face, which are not discussed here. This sheet is only intended to get you started on the right track. To be successful with your marine tank in the long term, you will need to reference other sources of information. The very best sources are experienced people, and the best place to find them are in clubs and societies. Please take advantage of the resources listed below:

- Marine Aquarium Society of Victoria (MASOV)
email: masov@masa.asn.au
web: <http://www.masa.asn.au/masov>
- Marine Aquarium Societies of Australia (MASA)
email: contact@masa.asn.au
web: <http://www.masa.asn.au/>
- Reefing the Australian Way web forum
web: <http://www.masa.asn.au/rtaw>
- Reef Central American web forum
web: <http://www.reefcentral.com>

Care sheet provided by
**The Marine Aquarium Society of Victoria
(MASOV)**

