

Checklist

Before purchase make sure that:

- 1 You have the appropriate equipment and position for the aquarium.
- 2 You have researched all the species you are interested in and your final choices are all compatible.
- 3 You are familiar with how to transport and release your fish.
- 4 You are aware of the daily, weekly and monthly maintenance your aquarium will require.
- 5 You are prepared to look after your fish properly for the duration of their life.

Equipment

- 1 Glass or plastic aquarium
- 2 Gravel cleaner
- 3 Water testing kit
- 4 Marine salt
- 5 Marine substrate & live rock
- 6 Filter & protein skimmer
- 7 Food
- 8 Heater, thermometer & hydrometer
- 9 Reverse osmosis/de-ionised water or tap water conditioner

Before purchase make sure:

- 1 Water parameters are as advised in this leaflet.
- 2 The aquarium is well-established and large enough
- 3 You are aware of the dangers in keeping these fish to yourself & others who come into contact with them



Never release your aquarium animals or plants into the wild

Never release an animal or plant bought for a home aquarium into the wild. It is illegal and for most fish species this will lead to an untimely and possibly lingering death because they are not native to this country. Any animals or plants that do survive might be harmful to the environment.

Important things to remember

Always buy...

test kits and regularly check the water for ammonia, nitrite, nitrate and pH. This will allow you to make sure the water in your aquarium is not causing welfare problems for your fish.

Establish a routine...

for testing the water in your aquarium. Record your results to enable you to highlight fluctuations quickly. Also check the temperature of the water.

Maintain...

the water in the aquarium within the accepted parameters highlighted in this leaflet. You may need to do regular water changes to achieve this.

Always wash your hands...

making sure to rinse off all soap residues, before putting them into your aquarium. Wash your hands again afterwards and certainly before eating, drinking or smoking.

Never siphon by mouth...

A fish tank can harbour bacteria which can be harmful if swallowed. Buy a specially designed aquarium gravel cleaner which can be started without the need to place the siphon in your mouth.



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If in doubt contact your OATA retail member for further information



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How to care for...



Venomous & poisonous marine species

77 Tropical marine fish



Introduction

There are various poisonous and venomous fish available to be kept in home aquariums. These include lionfish, scorpionfish, boxfish, frogfish, rabbitfish and pufferfish.

A venomous animal is one that possesses apparatus that can inject a toxin while a poisonous species is one which can cause harm if ingested. Seek advice about how to handle these fish from your retailer.

Water requirements

These fish do not tolerate pollutants in the system, therefore they should be added to a well-filtered aquarium. The water parameters are recommended to be within the following, although they may acclimatise to different water in time:

Temperature: 23 to 26°C

Ammonia: 0mg/l (0.01mg/l may be tolerated for short periods)

Nitrite: 0mg/l (0.125mg/l may be tolerated for short periods)

pH: 8.0 to 8.4

S.G: 1.020 to 1.025 at 22 to 28°C

Biology

This grouping of fish is diverse and their biology is variable. The size of these fish varies from species to species, however the average aquarium size are as follows: lionfish:17 to 38cm, pufferfish: 15 to 50cm, boxfish: 30 to 45cm, rabbitfish: 20 to 25cm, and frogfish: 7.5 to 30cm.

Venomous groups include lionfish, scorpionfish, frogfish and rabbitfish. These fish have rigid fin rays capable of injecting venom. Extreme care should be taken when maintaining the aquarium and moving aquarium décor to prevent potential injury. Medical advice must be sought in the event of injury.

Pufferfish and the closely related boxfish are not venomous but are poisonous. Their flesh contains tetrodotoxin which can be deadly to humans if ingested. This, of course is unlikely to happen in the home aquarium. However, some species can release toxins into the surrounding water if stressed. The leading dorsal fin ray of the frogfish has evolved into a 'rod' and 'lure' or *illicium* and *esca*. Frogfish are ambush predators which use this adaptation to bring potential prey items within striking range.

Frogfish are closely related to Anglerfish and have a lure situated on the top of their head to help attract prey known as the *illicium*.

Aquarium requirements

Some of these fish have the potential to become quite large. Therefore, a large tank of approximately 200 litres should be viewed as a minimum. Some fish, notably the yellow boxfish (*Ostracion cubicus*), are often sold at a very small size but can grow to over 30 cms quite quickly. Always check the adult size of fish when purchasing your tank.

A filter, heater, thermometer, hydrometer are essential. A protein skimmer may be beneficial, especially when housing species that can excrete toxins.

Many of the ambush predators will appreciate a sandy substrate as they spend most of their time on the bottom of the aquarium. The addition of live rock will aid filtration and also crevices for these fish to retreat into.

This group of fish does not require any specialised lighting. Any lighting chosen is primarily for aesthetic value and some are available that will emphasise the colours of these fish.

Maintenance

At least every two weeks, a partial water change of 25 to 30% is strongly recommended (a siphon device is also useful to remove waste from the gravel). This help to reduce the build-up of potentially harmful nitrates and other pollutants. Replacement water should be dechlorinated using strong aeration or a tap water conditioner (if not using reverse osmosis water). Ideally, replacement water should be heated and enough salt should be added to achieve the correct salinity.

Filters should be checked for clogging and blockages. If the filter needs cleaning, then do not wash it using tap water; any chlorine present may kill the beneficial bacteria that has established within the media. Instead, it can be rinsed in tank water which is removed during a partial water change. This should reduce the number of bacteria lost.

Good husbandry is essential as these fish can be stressed by even the smallest amounts of ammonia and nitrite. Test the water weekly to monitor ammonia, nitrite and nitrate, especially after initial set-up and after adding new fish. Do not forget to check the salinity as this may increase due to evaporation of water.

If live rock and invertebrates are present in the aquarium, never use copper based medications. Copper is highly toxic to invertebrate species, including those found within live rock.

Feeding

Pufferfish, lionfish and frogfish are carnivores, feeding on smaller fish and invertebrates in the wild. The rabbitfish are primarily herbivores although will feed occasionally on meaty diets. Boxfish are omnivores.

In the home aquarium, the diet required depends upon the type of fish you have. The rabbitfish require algae based foods but will also accept foods like brine shrimp. Lionfish and frogfish prefer larger live foods such as shrimp, but can be weaned onto foods such as thawed frozen lancefish. Boxfish and puffers will accept most aquarium foods, a supply of frozen and good quality pellets are usually accepted. Feed your fish 2 to 3 times a day and remove any uneaten food to reduce waste build-up.

Potential problems

A water quality problem will affect fish behaviour and can be shown by clamped fins, reduced feeding, erratic swimming and gasping at the surface. Immediately test the water if any of these symptoms are shown. Poor water quality is the main cause of disease outbreak in aquarium fish. If in doubt, ask your OATA retailer for advice.

Compatibility

The frogfish can predate upon fish up to twice its size due to the extendable stomach and mouth. Therefore they are not good additions to a community aquarium.

Pufferfish have strong teeth making light work of coral and small invertebrates. Therefore, they are not suitable for reef set-ups. Rabbitfish are relatively peaceful and can be added to a community aquarium; however, they will not tolerate other rabbitfish. Boxfish may release toxins which can kill all other tank mates, therefore only keep in a aquarium if you are sure you can avoid stressing this species. It is important to remember that they will get very large in a short space of time. Lionfish can be housed in community aquariums, as long as the tank mates are not small as they are able to eat smaller fish and invertebrates.

Breeding

There are no reports of these fish being successfully bred in a home aquarium.