

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 The fish are compatible with existing set-up and you know the risks of keeping these fish



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...



Groupers, Morays & Triggerfish

76 Tropical marine fish



Introduction

This is a group of fish for the more adventurous and experienced marine enthusiast. This includes the Moray eels, Groupers and Triggerfish. These fish all get large in comparison to most other marine species available.

These fish belong to the families Muraenidae (Moray eels), Serranidae (Groupers) and Balistidae (Triggerfish).

Water requirements

These fish are large and notoriously dirty, so extra effort is required to maintain good water quality. The water is recommended to be kept within the following parameters, although these fish may acclimatise to different water in time:

Temperature: 23 to 26°C

pH: 8.1 to 8.4

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

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

S.G: 1.020 to 1.025 at 22 to 26°C

Biology

These fish are some of the largest available for a home aquarium. The commonly available Moray eels can reach a length of between 50 to 100cms. The Groupers which are found in the trade can reach sizes up to 100cm. The Triggerfish reach a size of between 30 to 70cm.

Moray eels are scavengers which have a second set of jaws known as pharyngeal jaws in their throat which are used to ensure that food can be crushed and swallowed.

Triggerfish use their strong jaws to dig caves into which they will retreat if threatened. In order to protect themselves once in their cave they will lock out the first ray on their dorsal fin. This mechanism is also used to prevent predators swallowing the fish.

These fish can survive for many years if the water quality is maintained to a good standard.

Groupers are protogynous hermaphrodites, meaning all fish are female when juvenile turning into males when they reach a certain size or life stage.

Aquarium requirements

This group of large fish need equally large accommodation. The size of tank required is dependent on the adult size of the species concerned, but 300 litres should be adequate for the smallest species.

Check in books or with your OATA retailer as to the fully grown size of the species you are interested in.

A heater, thermometer, hydrometer and test kits are essential to maintain and monitor the water quality. A protein skimmer would also be beneficial owing to the messy nature of these fish. Some of these fish, such as the moray eels, are notorious escape artists so a tight-fitting lid is essential.

Heaters should be carefully positioned to ensure they cannot cause harm to the fish. Some fish have been known to be burnt by the heating element, so a heater guard should be considered.

Live rock not only helps to aid the filtration, but also can provide crevices for fish to retreat too. Ensure any rockwork is securely positioned to prevent any rocks from becoming dislodged.

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 helps 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 because 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

These fish species are carnivores and feed upon many things in the wild including shrimps, crustaceans and fish. This diet will need to be replicated in the home aquarium. Feeding with prepared frozen foods such as shrimp, squid, and crustaceans will be suitable, always ask your retailer to feed the fish in front of you before purchase to ensure feeding.

Take care when feeding these fish, especially the triggerfish and the Moray Eels, they have sharp teeth and strong jaws and may inflict a nasty bite if you are not careful. 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

These fish should not be kept with small fish as they will eat them. They are generally not reef safe either and many will eat small crustaceans. Triggerfish can use their strong beaks to damage corals.

It is best to keep just one individual per tank, as these fish become aggressive and territorial with age towards same species. Moray Eels may be kept with larger fish, such as Triggers, puffers, lionfish and groupers. The majority of triggers can be kept in community tanks, however research your chosen species before purchase as some become exceedingly aggressive with age. Groupers can be kept in community tanks with other large fish.

Breeding

There is little evidence of successful breeding in the home aquarium of any of these species. It may be too difficult to replicate the environmental signals required to initiate spawning of the fish.

