

## 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 Tap water conditioner
- 5 Gravel
- 6 Filter
- 7 Food
- 8 Heater & thermometer
- 9 Marine aquarium salt

Before purchase make sure:

- 1 Water parameters are as advised in this leaflet.
- 2 The aquarium in which the fish is to be housed is large enough for the adult of the species



### 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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*The voice of the ornamental fish industry*

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How to care for...



# Monos, Scats, Archers & Puffers

60 Tropical brackish fish



# Introduction

These fish are different from most of the tropical species due to the fact they require low salinity water in order for them to thrive.

In the wild, the Scats, puffers and Archerfish can be found inhabiting the Indo-Pacific regions, while the Monos are found in the Eastern Atlantic.

# Water requirements

This group of fish require low salinity water achieved by the addition of marine salt. The following parameters are a guide as these fish can acclimatise to other water over time

**Temperature:** 22 to 30°C

**pH:** 7.0 to 8.5

**Ammonia:** 0mg/l (0.02mg/l may be tolerated for short periods)

**Nitrite:** 0mg/l (0.2mg/l may be tolerated for short periods)

**Specific Gravity:** 1.005 to 1.010

# Biology

This group of fish belong to two different orders, the Scats, Monos and Archerfish belong to the *Perciformes*, the puffers belong to the *Tetraodontiformes*, which are mainly marine but there are a few freshwater/brackish species.

The puffers do not get as large as the other types of fish, and the three most common aquarium species range from 8 to 17cm in length, though other species can grow larger. The remaining fish can reach much larger sizes ranging from 20-40cm.

These fish can be found from marine to low brackish environments including mangroves, rivers and estuaries. Fish with the ability to adapt to a wide range of salinities are known as euryhaline. Like the name suggests, puffers can 'puff' their body cavity when threatened. This is achieved by the intake of water into the stomach. However this is a very stressful process for the fish and should be avoided at all costs. Puffers also have continually growing teeth which can inflict a nasty bite.

Archerfish get their name from their ability to 'shoot' insects from above the surface of the water with droplets of water.

# Aquarium requirements

The addition of marine salt is necessary to produce the required brackish conditions. A specific gravity of 1.005 to 1.010 is optimal. Often juveniles are kept in less brackish conditions and you may need to gradually increase the salinity of their water over time. Check with your retailer regarding the water conditions in which the specimens are held prior to purchase to prevent shocking the fish by taking them home to different conditions in your aquarium.

Large tanks are recommended as this reduces the effect of increasing salinity due to evaporation and also allows these active fish plenty of swimming space. These species might best be provided with a 200 litre aquarium. Scats and Monos require a shoal of 5-6 fish as they do not do well by themselves. Due to the aggressive nature of these fish towards their own kind, a larger tank of 360 litres is recommended.

Heavily planted tanks with plenty of bogwood are also a must, this helps to ensure a natural environment is created. Ask your OATA retailer which plant species can tolerate brackish water. A deep aquarium is also beneficial. Archerfish predominantly feed upon flying insects in the wild and will swim at all depths of the aquarium.

# Maintenance

At least once every two weeks a partial water change of 25 to 30% is strongly recommended (a siphon device is useful to remove waste from the gravel). The water should be tested regularly to ensure pollutants such as ammonia and nitrites do not build up. Ensure you either allow the replacement water to stand or aerate it to remove any chlorine present. Ideally treat all replacement water with tap water conditioner before adding to the aquarium.

Filters should be checked for clogging and blockages. If the filter needs cleaning then do not run it under the tap as any chlorine present may kill the beneficial bacterial population that has established in the media. Instead, it can be rinsed in the tank water which is removed during a partial water change as this reduces the amount of bacteria which are lost.

Good husbandry is essential as these fish can be stressed by even the smallest amounts of ammonia and nitrite. Test the water to monitor the ammonia, nitrite and nitrate levels every week, especially during initial set-up and after adding extra fish.

# Feeding

Puffers are carnivorous fish, so meaty diet including snails, mussels, cockles and shrimps should be provided. Hard-shelled food items will also ensure the puffer's teeth do not become overgrown.

Archerfish are also carnivorous and predominantly prey upon insects, although they will also accept floating flakes and pellets.

Monos and Scats are omnivorous fish, and will accept most aquarium foods. A varied diet is recommended. They will also eat live plants and vegetable matter. All these fish should be fed what they can eat within a few minutes 1 to 2 times a day. 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. If in doubt ask your OATA retailer for advice.

# Compatibility

These fish should only be kept with other brackish water species. Even though they can tolerate freshwater this is not advisable as these conditions are not ideal and may shorten their lifespan.

Puffer fish can be very aggressive, fin nipping almost all tank mates, therefore they should ideally be kept in species tanks. If more than one is kept it is common for a weaker individual to be harassed and attacked which can lead to death so consider a solo specimen.

Monos and Scats are also aggressive towards other fish and it is recommended they are kept in small groups in a large tank to help subdue aggression.

# Breeding

It is highly unlikely these species will spawn or breed in home aquariums. Scats are thought to return to saltwater to breed and in the home aquarium recreating this environment would not be practical. Puffers, Monos and Archerfish have little or no reported successful breeding attempts in home aquariums either.