## 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



# 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.



Scan this code to download an electronic copy If in doubt contact your OATA retail member for further information



How to care for...



# Dwarf Angelfish



## Introduction

In the wild, this group of fish are found in tropical seas including the Pacific and the Caribbean and there are more than 30 species including the Coral Beauty, Lemonpeel, Flame, Bicolour, Flameback, Redstriped and Potters.

## Water requirements

Once established in a marine aquarium these fish are fairly hardy, however they are not a suitable addition to a new tank as they have little or no tolerance of ammonia and nitrites.

The water parameters of the tank are recommended to be within the following, although these fish may acclimatise to different water over time:

Temperature: 23 to 28°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 1.026

# **Biology**

The dwarf angelfish belong to the family Pomacanthidae and genus *Centropyge*. This group of fish do not get as large as other marine Angel species such as the Koran angel (*Pomocanthus semicirculatus*) or the Emperor angel (*Pomocanthus imperator*). The maximum body length they grow to is between 8 to 15cms.

It is often difficult to sex adult individuals because the majority show little colour variation between males and females. If several specimens are present the females tend to be rounder in the body than the males.

These fish are protogynous hermaphrodites. This means they all start life as females, one or two individuals changing sex to male during later life when in the presence of another fish of the same species.

# Aquarium requirements

In the past, these fish have been used to cycle a new marine tank due to their hardiness. If they are used for this, then great care must be taken to monitor and manage the water quality.

Due to their small size, these fish can be successfully kept in smaller aquaria if water quality is closely monitored. Larger tanks of 100 litres or more are ideal and may be easier to maintain and allow you to keep more fish.

In addition to the filter, heater, hood, lighting and thermometer, a protein skimmer is also highly recommended. A hydrometer or refractometer should be used to determine the salinity of the water. A UV steriliser can also be added to the system. This may help to reduce disease causing organisms within the aquarium.

The bottom of the tank is best covered with marine sand or gravel. The addition of live rock is also beneficial and will aid biological filtration.

## 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 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

All the fish in this group are omnivorous, however in the wild they will predominantly feed upon algae growing on surfaces of rock and sand. A natural build-up of macro-algae growth in your aquarium is required, however supplementary feeding is recommended.

The addition of algal based foods, mysid shrimp and brine shrimp is suggested, and this should be 2 to 3 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. Poor water quality is the main cause of disease outbreak in aquarium fish.

It should be noted some of these species are sensitive to copper based treatments, so ask your OATA retailer for advice before adding a medication.

# Compatibility

This group of fish can become aggressive towards other fish introduced to a tank, because of their territorial nature. If a fish does become aggressive it may be possible to reduce this by moving around the tank décor.

These fish may nip corals and invertebrates in a reef system.

This group of fish are welcome additions to tanks which are subject to large algal out breaks especially brown diatoms as they can remove much of this through grazing.

A single dwarf angelfish can be housed with a wide range of other non-aggressive species including blennies, boxfish, butterflys, tangs, damsels, cardinalfish, chromis and gobies.

## **Breeding**

A few of these fish are currently captive-bred, although this is not easy to achieve within the confinements of a home aquarium. However paired dwarf angelfish can still bring some fascinating courtship dances to your aquarium without successful breeding.