# 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 animals.
- 4 You are aware of the daily, weekly and monthly maintenance your aquarium will require.
- 5 You are prepared to look after your animals 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

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
- 3 If adding to an existing set up ensure these animals are compatible



## 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.



If in doubt contact your OATA retail member for further information



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# Crayfish & crabs



## Introduction

These invertebrates should be purchased with caution. They are unfussy opportunists who will scavenge food or may attempt to catch a passing fish. With careful tank mate selection, these animals can be very interesting to keep and add a little extra diversity to your aquarium.

# Water requirements

These animals all require very good water quality. The guide below is a guideline as they can be acclimatised to other water types:

**Temperature**: 20 to 26°C

**pH**: 7 to 8

**Ammonia:** 0mg/l (0.02mg/l may be tolerated for short periods) **Nitrite:** 0mg/l (0.2mg/l may be tolerated for short periods) **Hardness:** Slightly hard to hard (10 to 20°dH)

# Biology

At the time of writing, there is only one species of freshwater crayfish that can be legally imported into the UK which is the red clawed crayfish, *Cherax quadricarinatus*. This blue-coloured crayfish can reach 15 to 20cms in captivity. The males are identifiable by a red patch located on the underside of their pincers or *chelae*. Females lack this red mark. Crayfish belong to the decapods group in reference to their 10- jointed limbs.

Commonly available in retailers are the red-clawed crabs (*Perisesarma bidens*). These crabs grow to approximately 4cms. The males can be distinguished from the females by possessing more robust claws. Despite their small size, these crabs can still give a surprisingly powerful pinch! Both crabs and crayfish are invertebrates with hard exoskeletons. Just like shrimp, these creatures need to moult their exoskeletons to grow. Immediately after moulting, these creatures take time to harden up and are vulnerable for this period.

In similarity to fish, crabs and crayfish use gills to extract oxygen from water. Unlike fish, crabs and crayfish can hold water in their gills which allows them to leave the water for extended periods. The red claw crab is actually a semi-aquatic species and therefore must have means to leave the water. Some species, like land crabs, have taken this method to the extreme, only returning to water to breed. While such species are available, they are not suitable for aquaria.

# Aquarium requirements

Owing to their larger size, the red clawed crayfish should be housed in an aquarium of at least 90 litres capacity. The smaller red clawed crabs may be kept in smaller aquaria. As mentioned, it is vitally important that the red clawed crabs have access to the surface, and this can be achieved using ornaments that breach the water's surface. As these animals can leave the surface of the water, ensure you have a tight fitting hood to prevent them from escaping.

Filtration is a must for these animals as they do not tolerate levels of pollution.

These animals often seek protection immediately after moulting as they are vulnerable. Provide rocks and ornaments for them to hide in. As these species prefer harder water, you can use calcareous rocks such as ocean rock or tufa rock which will help to harden the water.

Crayfish and crabs can sometime damage aquatic plants. If attempting to keep plants in an aquarium, good lighting is normally required.

## Maintenance

At least once 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). The water should be tested regularly to ensure pollutants such as ammonia and nitrites don't 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.

Copper is highly toxic to invertebrate species. Never use copperbased treatment when these species are being kept. Alternative treatments are often available, so always make sure they are safe for invertebrates.

# Feeding

Crabs and crayfish are carnivorous scavengers. They will happily accept most sinking aquarium foods. From time to time, they can also be offered larger portions of frozen food such as lancefish, mussel and cockle.

Feed these animals 1 or 2 times a day. Always remove any uneaten food to prevent fouling of the aquarium water.

# Potential problems

Crabs and crayfish usually show very few signs of ill health. However, if any unusual behaviour is noticed, test the aquarium water immediately. If in doubt, seek advice from your OATA retailer.

# Compatibility

As already stated, these animals are carnivorous scavengers and it is not unknown for them to try to take live fish. This is especially true of the red-clawed crayfish. These should only be house with very large fish that are unlikely to be troubled by these crayfish. Ideally, they are best kept in aquaria by themselves.

The red-clawed crabs show grater compatibility with fish, but only with careful tank mate selection. Avoid small fish or fish that may spend a lot of time at the bottom of the aquarium. Therefore, catfish like *Corydoras* may be unsuitable. Always consult your OATA retailer with regards to fish and crab compatibility.

## Breeding

Breeding of the red-clawed crab in captivity is a very unlikely occurrence. It is known these crabs produce planktonic larvae which require very precise water quality conditions to grow and thrive.

Conversely, red clawed crayfish will reproduce quite easily in captivity. Females carry hundreds of large developing eggs in her swimmerets or *pleopods* for approximately a month before they hatch. Like the *Neocaridina* group of shrimp, these crayfish produce young that are precise miniatures of the adults. These are fully equipped with mandibles and a pincer to obtain food and tackle small prey items.