If in doubt contact your local OATA retail member for further information

Scan this code to download an electronic copy

IMPORTANT THINGS TO REMEMBER:

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

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 undertake 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 them 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. Purchase a specially designed aquarium gravel cleaner which can be started without the need to place the siphon in your mouth.

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 as they are not native to this country. Any animals or plants that do survive might be harmful to the environment.

Checklist...

Equipment:

□ **Aquarium**

□ **Gravel cleaner**

□ **Water testing kit**

□ **Tap water conditioner**

□ **Gravel**

□ **Filter**

□ **Heater and thermometer**

□ **Food**

Before purchase ensure that:

□ **The aquarium is suitable for an adult of the species chosen.**

□ **The water parameters are as advised in this leaflet.**

□ **If adding to an existing set up ensure these animals are compatible.**

ORNAMENTAL AQUATIC TRADE ASSOCIATION LTD

"The voice of the ornamental fish industry"

www.ornamentalfish.org

V1.1

How to care for...

Shrimps & Snails

Introduction...

Freshwater invertebrates are a great way of introducing a bit of variety to your freshwater fish tank. Many of these invertebrates can also be quite useful and can help keep your aquarium looking clean.

Most of the species available are quite undemanding but due to their small size, you should always be careful what fish you keep them with.

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: 20-26°C (although apple snails can tolerate temperature of around 18°C

pH: 6.0-7.5

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

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

Hardness: Soft - moderately hard (4-12°dH)

Biology...

The commonly available shrimps come from the *Caridina* genus (such as the Yamato shrimp) and the *Neocaridina* genus (crystal bee shrimp). Being invertebrates possessing a hard exoskeleton, shrimp need to shed their exoskeleton to grow (a process known as *ecdysis*). Some keepers are often alarmed when they spot a moult in their aquarium, mistaking it for a perished shrimp. The Yamato shrimp grow no larger than 4 cms and the crystal bee shrimp no larger than 2cms. Sometimes seen are Bamboo shrimp (*Atyopsis moluccensis*) and Cameroon fan shrimp (*Atya gabonensis*) although both have a number of common names. They reach approximately 5 cms and 10 cms respectively. These are filter feeding shrimp and possess two pairs of fan like appendages that they use to extract small particles of food from the water column.

Ornamental snails are a firm favourite amongst hobbyists. They come in a great range of sizes, colours and behaviours. Apple snails can grow quite large (approximately 5 cms in diameter), whilst the porcupine snails remain quite small. Many of these snail species are great algae eaters, but some also find aquarium plant quite palatable! Assassin snails, on the other hand, are a great way of controlling populations of pest snails that may turn up in your aquarium.

Aquarium requirements...

The small shrimp and snail species are not hugely demanding. If being kept on their own, nano aquaria with a 10 litre capacity should be sufficient. However, larger aquaria are easier to maintain and allow you to keep more animals. If you wish to keep fish with these shrimps, then a larger aquarium that can accommodate both will be required. The larger species such as the Cameroon fan shrimp should be kept in an aquarium of at least 60 litres or more.

All these organisms are sensitive to poor water quality, so filtration is essential. Water quality can be aided by the growth of healthy live aquarium plant. To achieve this, sufficient lighting is needed.

Some shrimp and snail species are quite adept at escaping from aquaria. For example, the apple snails leave the water to lay eggs. Therefore, a tight-fitting hood is required, paying close attention to the gaps where cables or pipework might enter and leave the aquarium.

Maintenance...

At least once every two weeks a partial water change of 25-30% is strongly recommended (a siphon device is also useful to remove waste from the gravel). The water should be tested regularly to ensure that pollutants such as ammonia and nitrites don't build up. Ensure that 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 animals 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 copper based treatment when these species are being kept. Alternative treatments are often available, but always check to make sure they are safe with invertebrates.

Feeding...

The *Caridina* and *Neocaridina* species obtain most of their nutrition through algae that grows in the aquarium. In the absence of this algae, they will accept proprietary foods such as algae tablets. The filter feeding shrimp will also accept these pellets and tablets. After moulting, their shed exoskeletons or *exuvia* should be left in the aquarium for them to consume as it is provides a rich source of nutrients.

Snails will also browse on algae and plant matter (and other snails in the case of Assassin snails). Their diet can also be supplemented with sinking foods.

Common ailments...

These species show few symptoms 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...

These species pose little threat to any fish species. However, there are a number of fish that will eat shrimp and snails as part of their natural diet. Botia-type loaches may consume snails, whilst many fish with large enough mouths may consume the small crystal bee shrimp.

Immediately after moulting, the shrimp species are particularly vulnerable as their new exoskeleton can take a number of hours to harden up. For this reason, keep these shrimp with peaceful fish species

Breeding...

The snail species show variability in their ability to breed. Unlike many terrestrial gastropods, apple snails have both male and female individuals. Apple snails lay large clusters of pink eggs above the water's surface. Zebra snails also have both male and female individuals, but there is limited evidence of them breeding in the hobbyist's aquarium.

The crystal bee shrimp species breed quite readily in captivity. The females carry the developing eggs in her swimmerets or *pleopods*. The eggs hatch releasing fully formed young. However, the *Caridina* group of shrimp produce larval offspring which develop in brackish water. For this reason, reproduction in average aquaria setup is very unlikely to occur.