



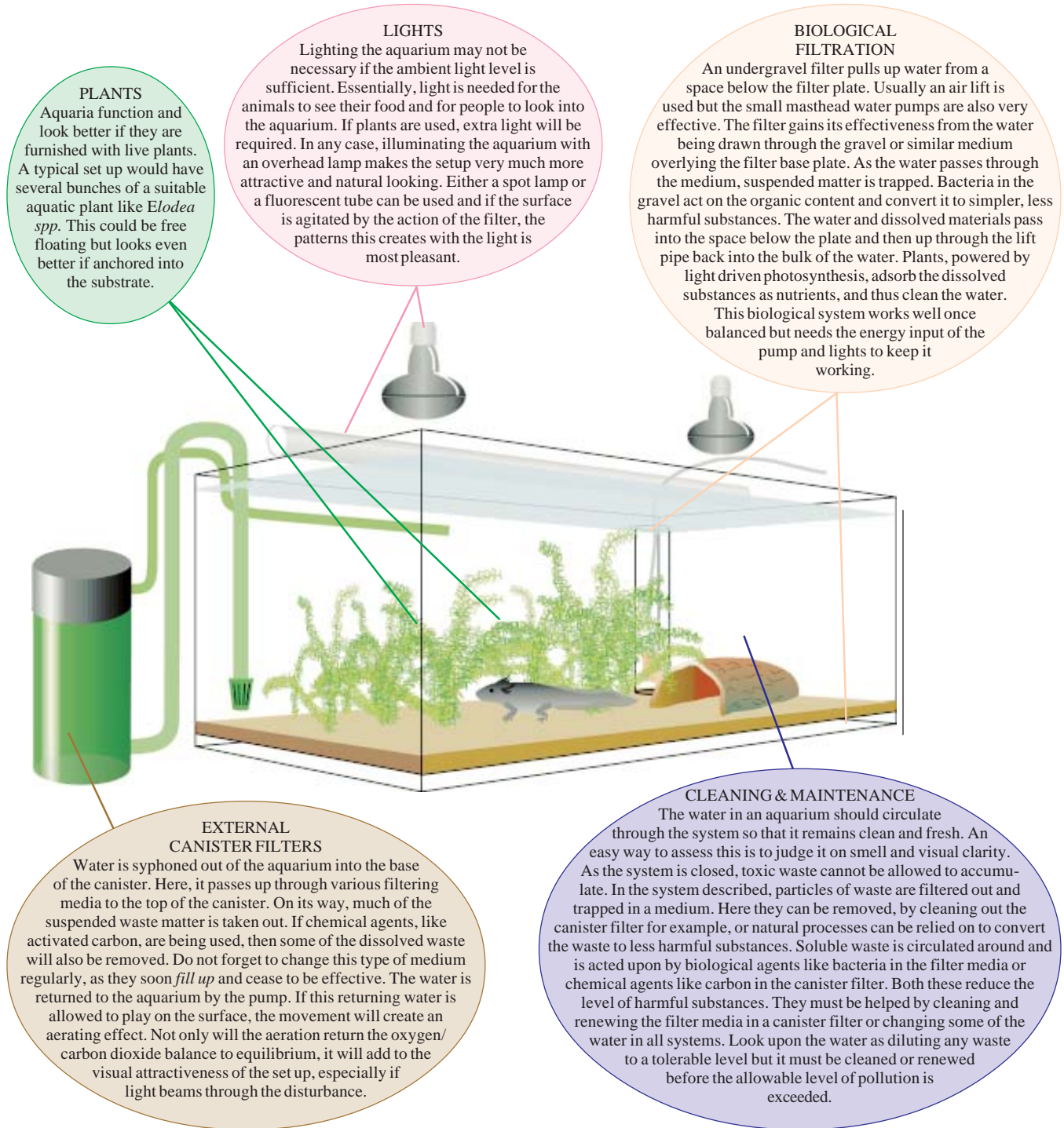
Keeping Aquatic Newts & Salamanders

An Introductory Information Leaflet



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Aquatic Newts & Salamanders...

...Biology

Newts and Salamanders are a group within the Amphibia. They live in most habitats with access to fresh water and come mainly from Eurasia and North America. Most live on land and occasional return to water to soak themselves or breed. Some species, however, can live entirely in an aquatic environment. These types are fully equipped for permanent life in water and indeed some species cannot survive out of it.

Commonly available examples include Axolotls, *Ambystoma mexicanum*, Neotenic Tiger Salamanders *Ambystoma tigrinum*, Ribbed Salamanders, *Pleurodeles waltli* and Paddle-tailed Newts *Pachytriton sp.* and *Paramesotriton sp.*

...Housing

The most suitable containers for these animals are aquaria. Set up in a manner similar to those used for tropical fish, these tanks make admirable quarters. As some of the animals housed will tend to become quite large, it is best not to construct too elaborate a set up, for fear of it being wrecked by a boisterous inmate. A 60 cm x 30 cm x 30 cm aquarium would be large enough for a pair of animals at 20 cm each or about a dozen smaller animals at about 5 cm each.

The water in the aquarium is best filtered in some way and the movement necessary to do this, can be used as aeration at the same time. Alternatively, a simpler system could be employed. Either the water is changed more frequently or a lush growth of plants is used to mop up pollutants. These filterless systems are usually only recommended for tanks containing a few small animals.

Room temperature of between 20°C and 25°C is usually sufficient but some species may require a little more warmth. This is easy to achieve with a heater and thermostat suitable for tropical fish use.

An external canister type water pump, an undergravel filter with an air lift or some similar device should otherwise be used. Whatever method is chosen, the object should be to remove gross contamination from the water by trapping the waste particles somewhere they can be periodically removed from or allowed to degrade to harmless by products. Another function of filtration is to change harmful dissolved substances into less harmful or neutral products. Some of these may well be taken up by the plants growing in the aquarium, thus facilitating the overall effectiveness of the filter.

To set up the tank, add the substrate to form a base and into this anchor the plants. Any other items of decor can then be positioned. Finally, fill the aquarium with water. Ordinary tap water is suitable but may be improved by adding a proprietary conditioner. The filter should be installed and run for a few days to settle the environment. (If an undergravel filter is used, it must of course, be installed before the substrate.)

The substrate has a dual purpose. One is purely decorative and the other, functional. Where decor is concerned, much is dictated by personal taste but a few points are worth considering. Choose the colours to blend into a pleasing background that contrasts well with the animals. Either a very dark or very light colour will probably make the best contrast. A terraced effect built behind retaining walls, gives the impression of depth and allows both the animals and plants access to different levels. The functional role of the substrate will centre around its ability to trap and hold particulate material and how much microbial life it can support. Chemically, it is better if it is inert. The best substances to choose are the fairly coarse, lime free sands and gravels used for aquariums. Alternatively, the artificial medium, Hortag is recommended. All substrates must be thoroughly rinsed before being used.

Plants again, serve in both decorative and functional roles. They are better planted towards the rear of the tank and choose a species like *Elodea* that is tough and will provide good oxygenation.

...Husbandry

Aquatic newts and salamanders cannot really be handled. If it is necessary to move them from one aquarium to another, a suitably sized net should be used. The net should be made from a soft material as the skin is quite delicate. Return the animal to water as quickly as possible and avoid escape by capping the net with a free hand.

Once each week replace about one third of the water with fresh in filtered systems or replace two thirds in unfiltered systems. Judge the quality of the water on its clarity and smell. Gross pollution will necessitate a complete water change immediately. The only other piece of maintenance that needs to be done is the periodic pruning of the plants.

...Food & Feeding

Aquatic newts and salamanders recognise food by smell and movement. Like many amphibians they will snap at moving objects in the hope that they might be a meal. If the morsel tastes OK and is of a size that can be swallowed, it is eaten.

Unlike most, however, these aquatic amphibians will also take dead food if it smells appetising enough.

Size of Animal	Food
10 mm to 50 mm	Tubifex, live, frozen or dried Bloodworm, live, frozen or dried Whiteworm & Daphnia
50 mm to Adult	Crickets & Mealworms Earthworms Frozen Lance fish Raw meat & fish, cut into strips Frozen, prepared reptile food

Whole animals are probably the best foods as they contain a good balance of nutrients. The table above gives an idea of what to feed. Food should be offered two or three times per week with enough to be totally consumed in about half an hour. Do not leave uneaten food in the water. Most aquatic animals are probably lost through overfeeding and the subsequent pollution it causes, than any other cause.

...Reproduction

Aquatic newts and salamanders are some of the easiest amphibians to breed and some of the excellent publications available will provide further information. Adult pairs will, of course, be required. To tell the sex, it is usually necessary to wait until the individual is mature and then often, in breeding condition. This conditioning may be seasonal, so the right time of year is important. All these details will be available in the publications recommended or a 'Herpetological' club or society could be contacted.

...Species

The precise requirements of the species being kept can also be obtained from similar sources. The 'Internet' is fast becoming a major source of information and a discussion forum. If access is available, much profitable research is possible and all sorts of extra benefits present themselves.

...Health & Disease

Pet newts and salamanders do not suffer from many problems. Occasional skin infections may show and can usually be dealt with by a preparation suitable for fish. The treatments and advice are available from aquarists and pet stores. Good practice, hygiene and first aid will probably deal with rest. If real disease is discovered, a vet must of course, be consulted. Pet newts and salamanders do not pose any real threat to human health. All the normal hygiene precautions regarding humans and animals should, however, be observed.