AXOLOTLS CARE
INTRODUCTION

Axolotls (ambystoma mexicanum) originate in Mexico from lake Xochimilco and Lake Chalco. Both of these lakes have almost disappeared now due to development of the city of Mexico and drainage but a few small patches and tributaries still remain of Lake Xochimilco. This amphibian is now an endangered species in the wild and has been classified as cites 1 listed, which means they are almost all gone from the wild. Recently there has been some activity to reintroduce them to the remaining lake areas that remain, only time will tell if this has been successful. Axolotls make a unique and interesting pet, however they are also edible and sold for food in some Mexico City markets. They reach up to 12 inches in length and 5 or 6 inches in girth and they are in fact Salamanders, and are thought to be a branch of the Tiger Salamander which has evolved along different lines probably due to environmental conditions. The ambystoma mexicanum differs from many other similar species by the number of toes on its feet, they have 5 on the hind legs and 4 on the front. They can also regrow their limbs if they loose them.

Axolotls come in a wide variety of colours but the natural 'wild' type colouration is blackish to mid brown, they have also been bred in albino white, albino yellow, grey, black, tan and spotted types known as Harlequin Axolotl. The albino forms, particularly the white one when young is opaque and the internal organs can be seen through the sides if the animal.

HOUSING

Axolotls are entirely aquatic under normal circumstances and so fish tanks are the ideal home. They can reach quite a large size and the best size tank for a single adult axolotl would be 18” x 12”, and the water level need not be more than 6” to 10”. You can, if you want, keep them in a smaller tank but this may cause some stress to the animal and for the sake of a little extra money you may as well give them more freedom to move around.
Strictly speaking, the axolotl tank doesn't need to be filtered if you are prepared to remove 15 - 20 % of the water each week during a water change and clean. The time required to do water changes and cleaning can be greatly reduced if using filtration. However, keep water flow to a minimum as they do not require water movement, and can get stressed in rapid moving water. You will observe they spend most of the time in the same spot, moving their gills occasionally to disperse carbon dioxide and circulate new oxygen.

Large pebbles or very coarse aquarium gravel is preferred for the bottom of your tank. Smaller gravel or sand can cause problems for axolotls, especially if digested. A layer of smaller gravel may be used if covered by larger stones. Axolotls can be kept without any substrate at all, however much more care will need to be taken with water quality as essential bacteria is more easily maintained with a substrate. Tap water must be treated with a water conditioner before use. The water should be roughly neutral (pH 6.5 - 7.5) and maintained at a temperature of 10-20C (you may need a heater to maintain this). Too warm and the axolotl will perish, however if it is too cold, it will only slow their metabolism. Axolotls don't have any specific lighting requirements and the fluorescent light that comes with most aquariums is perfectly adequate. They don't like bright lights, so you shouldn't use any heat generating lights or very bright ones as their eyes have no eyelids to protect them.

**FEEDING**

In their native habitat, axolotls eat the abundant small fauna, including snails, worms, crustaceans, various small invertebrates such as daphnia, and small fish and amphibia. They will in fact eat just about anything that will fit into their mouth, but this doesn’t mean they should. Generally they can be fed beef heart and other frozen or fresh carnivores foods. Special axolotl food is also available. Avoid feeding them mince or other budget meats as they cannot tolerate fats. Any food that the axolotl doesn't eat should be removed after 24 hours otherwise it will begin to go rotten and spoil the water quality. Similarly any solid waste material should also be removed. If your axolotl is not eating be sure to check the water quality and temperature.
**BREEDING**

The male axolotl when mature can be differentiated from the female by size, but mostly by the swellings at the base his rear legs (*cloacal area*). The males develop quicker than the females and will be sexually mature by 12 months or so. The female will also be a little fatter than the male as she carries a great number of eggs.

In the home axolotl breeding takes place between early spring and mid summer but it must be induced by a drop in temperature of around 4°C. There needs to be a little preparation on your part for a successful mating to occur, firstly the male will need something like a flat slab of stone on to which he will deposit the sperm masses (*spermatophore*) and the female will want some aquatic plants on to which she can deposit her 300 - 900 eggs.

Eventually the female will position her body over the spermatophore and pick them up with her cloaca (*this can take a few days*), around 24 hours later she will deposit her eggs on the plants you provided. The newly laid eggs should be removed immediately to prevent them from being eaten and placed into a separate small tank which has a good air stone to add extra oxygen for the developing embryos and contains sterile distilled water.

From this point on the eggs should be kept in cooler than normal water at around 15°C and kept away from strong light. It is advisable to move the eggs around with a soft stick on a daily basis. You should also separate the eggs into small egg masses of around 40 eggs or so, this will allow more oxygen to get to the developing embryos. The eggs will develop quickly and you will be able to differentiate the live ones from the dead ones by the greyish colour, any grey ones should be removed to prevent them from going bad and affecting the good ones.
Under normal circumstances the good eggs will hatch after 14 to 18 days. Once the eggs have hatched, the new axolotl babies should be placed into a separate tank with plenty of room and a good air supply, if there is insufficient room they will quickly begin to attack each other and heavy losses will occur. Feeding baby axolotls is a matter of introducing live brine shrimp (preferably) or daphnia and tubifex worms if shrimp aren't available. As the young axolotl develops you can start to feed small bits of liver, steak, chopped worms or other similarly small food sources. Axolotls will grow rapidly and will reach maturity at around 7 to 12 months.

**GENERAL**

Axolotls are unique and easy to keep. Providing you maintain their water conditions they will live for up to 20 years and make an excellent pet and companion.