

CAPTIVE BREEDING AND REARING OF HONG KONG NEWTS (*PARAMESOTRITON HONGKONGENSIS*)

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INTRODUCTION

On November 6th, 1996, I carefully selected a trio of freshly imported adult Hong Kong Newts (1.2.0.) from my local reptile shop. The male showed a good cloacal lump and a slightly iridescent, violet band running laterally through his tail. At 4½", he was an inch shorter than the females and more lightly built. All shared the same, uniform brown dorsal colouring, laterally trisected with slightly raised, orange ridges; not worth calling a crest and black venters, mottled with orange.

BREEDING

Knowing only that these regular and sometimes long-term inhabitants of the shop's 18 x 12 x 12" tank of water had never bred in situ, I realised that I was completely on my own. My understanding of Banded Newts (*T. vittatus*) proved to be the catalyst. I put the 3 Hong Kong Newts into a vacant, well established tank (2' x 15" x 18" deep), planted lightly with straight *Vallisneria* in a one inch bed of fine gravel and serviced by an old-style Fluval No 3 filter with some cork pontoons available. As with *T. vittatus*, I had a hunch that deep water might be the answer.

On November 18th I sat and watched the entire courtship ritual between the male and one of the females. There was much rapid tail fanning and nonchalant stalking about the gravel before the female picked up the spermatophore. It was then that I decided to drop the water flow output of the pump from full power to about 50-70%. (Water temperature was about 57°F).

On November 25th, I introduced a small bunch of *Elodea*, giving them two kinds of aquatic leaf form. On November 28th, I added a 12" air bar, optimistically planning ahead to oxygenate the water for the larvae I was expecting. I had the stone on quite a powerful pump and soon decided to reduce the flow, using an in-line control screw.

By December the 2nd, at a temperature of 61°F there were eight eggs on the *Elodea*. This set the pattern for the days ahead: half a dozen or so eggs on alternate nights until, eventually I had about thirty eggs and the female stopped spawning. Only a few eggs appeared on the *Vallisneria*, *Elodea* definitely proving the obvious choice. The eggs were pretty typical: creamy-white, about 2/3mm and some appearing more oblong than round. A leaf of *Elodea* was wrapped around the majority, whilst a few appeared stuck to the upright, reedy stems of *Vallisneria*.

On December 14th, I recorded one of the females climbing up the *Vallisneria*, passing by an egg and then attempting to eat a second, higher one. (This is known to be common behaviour of the other newt species).

HATCHING

By December 20th, I had removed the adults and had provided several more bunches of *Elodea* to provide cover for yet to emerge larvae, which were now becoming visible within the eggs in the form of elongated black shapes. I had been adding five drops of Myxazin, almost daily since the eggs appeared and kept this up to prevent any infection. By January 18th, at 63°F, the eggs appeared a little opaque but this was just natural development, not mould.

By the end of January, I had added a Gro-Lux strip to the tank and had observed larvae on the gravel. At this point I recorded the larvae as being jet black, with a white trim, with obvious gills and eyes. In the first week of February, I removed the Fluval filter and replaced it with a sponge filter. I started adding Liquify No 1 Egglayers food at a rate of fifteen drops per day, morning and evening, and now had over a dozen larvae. I added some daphnia which was not taken.

REARING

By the middle of February there were a couple of dozen larvae and I was giving the water an occasional pinch of powdered fry food and even floated a crushed cricket in the tank. It was now that I decided to take a potential risk and add a heater to the water, raising the temperature by some 10° to 70°F. Some of the larvae had now attained 3/4" in length. I was allowing them eleven hours of light and noted how they favoured hours of darkness (which I observed by pen light) hiding out beneath a piece of resin 'bark' during the daylight hours. For the next two months the larvae grew on a diet of *Daphnia*, bloodworm and *Tubifex*. Some larvae had turned brown, as opposed to jet black and these were partially transparent. April also saw the first white spots appear on their venters and by halfway through the month I had 1 1/2" newts, losing their gills and emerging from the water.

At the end of April, with little brown newts emerging and favouring the cork bark portions, I tried my first translocation attempt. I put six baby newts into a tank lined with Examon (Zeolite) and with a beach into the water taken from the main tank. I offered them bloodworms, both in the water and in a jar lid. A few days after I conceded defeat and put the few barely surviving newts back into the big tank. They were dried into position and barely moved until they had had a soak. A week later I tried again, this time adding damp moss. The result was the same: the newts simply dried up on the top of the moss. Through June I tried offering hatchling crickets and by July I had all the surviving newts in a set-up of an inch of water and a piece of cork bark. I was still offering bloodworms and hatchling crickets and suffering steady losses.

In desperation I rang Marc Staniszewski for advice. He suggested that the temperatures that they were being kept in were too high for them and that I should try putting them in the fridge. Although there were some initial losses, the practice of putting them in the fridge for twelve hours a day seemed to work.

At the end of July a further piece of information from Richard Kingham, based on breeding successes in Bruges, led me to try the system I still have in use today. I use an inch of water lapping against a large area of bark chippings, a hide cover of cork bark and a diet of aphids. The lack of availability of aphids led me to substitute hatchling crickets again. By the end of August I had stopped refrigerating the newts and even with an ambient temperature now around the mid 70°Fs, they seemed to have got over the delicate stage where they needed cool temperatures. Since then I have lost no more newts.

CONCLUSION

To summarise I would say breed them in deep water and hatch them in cold, well-oxygenated water. Raise them in a fridge and feed them all the aphids you can find.

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