

Raising Axolotl Larvae

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I had some ±1000 hatchlings left over from the 14 January spawnings that I set up for the Cleveland State University Biology Department's Development course. I kept the larvae in groups of 25–30 in cut-off, plastic gallon water/milk jugs. These were fed daily on newly hatched brine shrimp until mid-May. Setting up the brine shrimp (in large finger bowls of saltwater under goose-necked desk lamps) and feeding the larvae only took about 30 minutes/day and that included cleaning a few bowls each time. The difficult part comes in trying to switch over to fragmented salmon chow.

The Biology Department allows me to use one of their cold rooms (15°C), and I have that lined with shelves. Some of the shelves are on wheels, and, in addition, I have a hand cart for moving dirty animals out to the sink in the lab for cleaning. Near the sink, I keep a 30-gallon plastic garbage can filled with tap water to allow the chlorine to evaporate overnight. I used to treat the water but no longer bother and have not noticed a difference.

Once the larvae are about an inch long, I isolate them into small and medium-sized plastic butter tubs which are labeled with bits of tape. I have an inexhaustable supply of plastic dishes. My Physical Therapy and Occupational Therapy students are more than happy to bring them into class, and many of the students have axolotl pets for their children.

Once isolated in the small dishes, the larvae either start eating the broken up bits of salmon chow or start shrinking in size. At that time they become lollipops for the adults or begin growing by leaps and bounds. The isolated larvae take lots longer to clean and feed, but are all stored, stacked up on the shelves in the coldroom. I usually spend 4–5 hours every other day cleaning, feeding, or doing experiments.

The animal-care fellow for the Biology Department is now 'into' axey's too. I just gave him 50 adults today to sell to a wholesale guy. The money he gets he uses to buy shrimp eggs or frozen brine shrimp to feed the larval axey's that he raises in large groups up in the

animal facility. He then supplies me with as many 3" larvae as I need to run my experiments. This is just a hobby with him, but it is a neat way for me to get the older axolotls off my hands when they are no longer useful for my experiments. My stock of adults is down to about 150 now, but I have plus or minus 500 larvae from 1 to 3 inches long, plus an almost inexhaustable supply from my friendly animal-care fellow.

I keep the salmon chow in another garbage can in the cold room, so there is no problem with roaches. If I'm in a hurry to grow-up some larvae for use, I'll hand feed them strips of beef liver cut from slightly thawed liver stored in freezer on picnic plates in baggies. Many of the staff and students around CSU now have axey pets and feed them this way. When they accidentally get spawns, they usually bring them into me to raise. There will soon be more axolotls in Cleveland than there are researchers!! I contribute them to the classrooms of as many area science teachers as I can reach with my tales about the marvels of axolotls.

I often have 4–6 year adults in my colony and have not noticed a damaging effect of the plastic dishes. The square cut-off plastic gallon milk cartons fit nicely on shelves and are just high enough to prevent isolated animals from jumping out. They hold slightly less than 1/2 gallon water. I can usually clean about 70 adult dishes with my 30 gallons of dechlorinated water. So any individual adult axey usually gets cleaned at least once every two weeks and fed 2–4 pellets every other day or so.*

Acknowledgments

I learned about all I know about axolotls from spending 6 months in Hugh Wallace's lab in Birmingham, England (Jan –June, '80). He's really great and certainly the most knowledgeable person imaginable when it comes to any kind of amphibian. He dug a pond in his back yard and now 'grows his own' newts and frogs.

* These very infrequent changes are probably possible because the animals are kept at 15°C and in the dark. If in doubt, monitor ammonia levels. The editor.