

## Northern Axolotls: Egg and Axolotl hatchling care sheet with brine shrimp guide. By Shawn Hayes

You will find the axolotl eggs are very easy, its after they hatch that the real fun begins. Once you get your eggs, check the packaging and put the inner bag into the receiving tub of cool dechlorinated tub of water. I prefer to use a 2 quart tub with good han-



dles and 2 gallons of cool, fresh treated water. Once the eggs have had a time to equalize temps, you can put them into the new tub. They should be individual eggs in either small clumps or strings of eggs, or individuals in either a grey/black or a light/white color. Hopefully they all have a little axy baby inside a nice cushion of a clear gel egg sack. Sometimes you will have 2 or even 3 eggs inside one sack, these are commonly called twins or triplets, but in fact are several eggs sharing the same sack. If they are all still round and clear with a growing curve of axy inside, we are in good shape. You can put an air hose into the water at a low flow if you like and usually 2 to 3 weeks from the

time they were laid, they will be ready for hatching. Water temps play a big part in this time line. They are pretty safe mid 60 degrees, but up or down a bit will be alright and could speed up or slow down the hatching times.

If they have had a rough journey, sometimes one or more will hatch early, if it's still alive, there is a good chance that it will survive. It will continue to eat its yolk until you can get some brine shrimp going for it. Under normal circumstance, a hatchling will eat its yolk for about 24 hours after hatching. It is safe to let them go a day before feeding, though I seldom do.

Pre-hatching, I would get things set up for the pending babies. I prefer to feed my hatchlings brine shrimp, but others have had success with daphnia. Microworms can be used also, but I wouldn't recommend these as a staple diet. The babies don't seem to get the high nutrients they need from them long term. There are many ways to hatch bring shrimp, from hatcheries you can purchase to home made jobs using water bottles, etc. I feed a lot of babies personally, so I hatch out a teaspoon of brine shrimp at a time in a half gallon of salt water in glass flower vases. It lasts for a several days before I have to start a new batch, so its become my norm. I suggest you do what works well for you, but the main thing is you need to have a constant supply of live food available for your hatchlings once they hatch out. I will provide an explanation of my shrimp hatchery at the end of this in case you want another example.

Once the babies are looking quite large in the egg, and getting close, its pretty common to see them twitch. I keep an eye for any that hatch out. I have already gotten another 16 qt tub filled with another 2 gallons of water with or without an air hose. Make sure you are using Prime, Aqueon, or another water conditioner that is safe for axolotls and they prefer hard water. Just make sure the conditioner doesn't have aloe in it. Once the babies start hatching, use a turkey baster to carefully suck out the babies from the egg tub and put them into the new bin. They are



often quicker than you think and you sometimes have to hunt them down in-between eggs. I usually start feeding them at the next feeding...I feed every morning and evening. So, if I find babies first in the morning, I feed for the first time that eve. I have had eggs take a full week or so to all hatch, and its best to let them hatch naturally. If I only have a couple after a week, I might help the stragglers along, but I give them all the chance to hatch on their own first. I also like to note when and how many hatch. I like to keep good records though, and note parents, colors, hets, etc. If I have multiple batches, I keep them separate as well.

The new hatchlings can all go in a tub by themselves and are tiny and fragile. I make sure and rinse the brine shrimp before adding it to the tub for them. I use a vase as a bring hatchery and have a brine shrimp net to strain out the brine from the water, using the same turkey baster. (turkey basters are gold!) That way the water stays in the vase and the shrimp are fed out. I like to make sure there is a good amount of brine without having too much. The extra will die fairly quickly and will need to be sucked up with the baster again before the next feeding. If there is too much, it will foul the water too fast, if there isn't enough, the babies won't find them. It's a balancing act that you will come to feel out fairly quickly. As you are cleaning out the detritus be sure you don't accidently suck up the babies. Some are very hard to see and like to hide in the mess.

Once a day or so, you will have to do a water change. Again, for the first week or so, while they are still tiny, use the turkey baster to move them into a new clean tub. Once they gain a bit of size, you can start using a small net, very carefully to transfer them

from one bin to another bin. Don't forget any, again, sometimes they can be very hard to see.

I feed brine for about 2 to 3 weeks or so, then start adding in cut up black worms for a couple of weeks with the brine. Then eventually switch over to full blackworms. If you don't have blackworms available, you can use frozen bloodworms, but I would wait until they are a little bigger to introduce cut up bloodworms as they are a bit bigger than blackworms are in girth. Eventually as the babies start reaching a month and a half or so, they should be on full blackworms/bloodworms.

I usually fit about 50 to 60 newly hatched axies into a 16 qt tub. As they get older, I add more tubs, maybe 25 into a tub at about 2 weeks or so, 10 to a tub at about 4 weeks, etc. They should start getting front legs at about 2 to 3 weeks, back legs at about 4 to 5, and if they grow to standard will be 2 inches at 2 months. If you plan on shipping, 2.5 to 3 inches is a minimum suggested. I let



them go locally once they have all 4 feet and are eating whole worms reliably. Its all up to you however. Obviously, you can let me know if you have any questions at all. This is my method of growing babies, others do it differently, such as keeping them all individually, etc. I have found as long as you give them enough space as they grow by adding tubs as they get bigger, and keep them well fed, they are usually just fine. If you find they are starting to eat limbs or gills from siblings, its more than time to spread them out more, and they need more food. The babies will eat twice a day for at least 4 to 5 months until they can go to once a day. As they get bigger, you can switch from black or blood worms to cut red wrigglers

or other smaller earthworms, etc. Larger axolotls can be eating pieces of nightcrawlers, raw shrimp, raw salmon, pellets, etc. I have fed smaller juvies the same variety of diet with much success. -Good luck!

My brine shrimp hatchery is a combo of 2 glass flower vases with a nice ovoid bottom shape and a wide neck and flaring rim. I use them one at a time, but then when one vase is almost empty of shrimp, I can start a new vase and time it so I am running out of one when the next are hatching. I use an air hose to keep the water constantly rolling in the vase, which keeps the eggs and bring moving and lots of oxygen in the water. Each vase holds a half gallon of water, which I put fresh dechlorinated water into. I add 4 Tablespoons of aquarium salt into the water. To this I can add up to a teaspoon of brine shrimp eggs. If I have a lot of hatchlings I use the whole teaspoon, if I only have a few, I might only hatch a half or less of a teaspoon. They only last about 4 days at the max, so you want to, again, balance your use with your needs. If you are using them too fast, hatch more, if you are using them too

slow, hatch less. I also keep the brine warmer than room temps. I used to use a lamp for this, but I find it harder and harder to find a regular bulb, so I have switched to a UV heat light. This keeps them toasty so they hatch in 24 hours but doesn't bother the axies with the light. When they were a little cooler, it was taking as long as 48 hours, which made the timing a bit trickier. I keep a small container of fresh water next to my brine to rinse my shrimp off before feeding.



## Useful tools:

- -16 qt tubs: should be new, have never been cleaned with chemicals or soap. When cleaning, rinse with hot water and a clean sponge used only on your tubs. (again, with no chemicals present) I have a large supply of tubs because I am always cleaning out and changing water.
- -turkey baster: again, new and only used for axolotls. Do not clean with soap or chemicals. Useful for catching and moving very young hatchlings, pulling brine shrimp from vases and straining into a brine shrimp net, and for sucking up detritus on the bottom of the tubs between water changes. (among many other uses you will find you use it for)
- -brine shrimp net: this is not just a fine mesh net, it is a specialty net for straining brine shrimp from the water. It is extra fine mesh and is also useful for clearing floating brine eggs from the tops of the tubs, or straining other things from the water between water changes. I have a favorite, not all brine nets are made equal. You will find yours.
- -aquarium salt and brine shrimp eggs: used to hatch live food for the hatchlings. Be sure you get hatchable eggs, not pre-shelled.