

# Langerhans Lab Protocols

**NC STATE UNIVERSITY**

## Fish Tank Water Changing

### Fry and tanks:

1. Remove air stone & lid, then take tank from shelf and place on stable surface.
2. Remove plants/ structure. Let debris settle out of water for a few minutes.
3. Count fry to make sure it matches # on tank label.
4. Use small (air stone size) plastic tubing to siphon debris from tank, especially bottom surface. First fill the tube with water, cap one end with your thumb, put other end into tank, and release thumb. Collect dirty water in bucket labeled “waste water”. Remove most of the water from the tank if it doesn’t have a filter (most fry tanks don’t). BE CAREFUL NOT TO SUCK UP ANY FRY WITH THE TUBE. If you do suck up a fry, it should land in the waste water bucket, from which you can net it and return it to the tank.
5. Refill the tank with aged, treated, warmed tap water. Replace plants/structures. Watch the fish as the new water is put in, looking for distress &/or jumping. If the fish don’t like the new water, scoop them from the tank and put them into the waste water bucket to hold them while you find better warm, aged, treated water.
6. Check the waste water bucket for fry. Dump waste water into sink.
7. Put tank back on shelf and replace air stone & lid.

### Five- and ten-gallon tanks:

1. Turn off filter, by turning off power strip into which it has been plugged or by unplugging the filter’s power cord.
2. Removing plants and structures is optional – you can probably push them around with the siphon tube.
3. Use gravel-sifting wide hose to siphon water and debris from tank. Position bucket labeled “waste water” below hose outflow— minimize water spilled onto floor. Use squeeze valve to start water flow. Stir gravel with wide tube, shaking drawn-up gravel out so tube doesn’t clog. A usual water change removes 20 % of the tank water (remove more if trying to change water chemistry, such as salinity, pH, or nitrates).
4. Refill tank with aged, treated tap water from buckets. Turn the filter back on & make sure it runs. You may have to prime it by pouring water from the tank into the chamber above the uptake shaft.

### Snail tanks:

1. Remove air stone & lid, then take tank from shelf and place on stable surface.
2. Gently stir up the water to suspend the debris. Try not to disturb snails.
3. Use small (air stone size) plastic tubing to siphon debris from tank. First fill the tube with water, cap one end with your thumb, put other end into tank, and release thumb. Collect dirty water in bucket labeled “waste water”. Remove most of the water from the tank. Do not vacuum bottom of tank, because snails settle there.
4. Refill the tank with aged, treated tap water.
5. Gently pour out waste water. Look carefully for snails on the bottom and sides of waste water bucket. Snails can be very tiny, but they look different than debris. Scoop snails from bucket and place back into snail tank.