Culturing Brine Shrimp

Make artificial seawater:

In 2 L dH2O dissolve (not all will dissolve, that's okay):

- 4 Tbsp Instant Ocean
- 7.8 g Sodium Bicarbonate

Hatch in 1500 mL beaker:

- add 1L of the artificial seawater you just made, reserve the other half for later
- ~1/2 tablespoon brine shrimp eggs

-Put in bubbler (just the hose, no air stone) all the way in so most of the eggs are getting circulated, tape down with masking tape.

-For ideal hatching, put under light (80-100 W bulb) BUT NOT TOO HOT (about 1 foot away, just so some heat is getting on beaker and eggs).

-Bubble for 24-36 hours

Transfer:

-Turn off bubbler

-With room light off, use flashlight to concentrate napuli (hatched brine shrimp) to middle of beaker (they will go towards the light)

-Use a transfer pipette to skim dead/unhatched eggs off the surface

-Pour the reserved liter of saltwater (but not the undissolved salt at the bottom) into a flat plastic pan (that has been rinsed with DI water – down middle aisle in the back of the stockroom)

-Pour the napuli and their water from the beaker into the flat pan as well (try to leave as much of the debris on the bottom of the beaker behind as possible – this will just dirty the water)

-This tank does not need an air stone, enough surface area for shrimp to get oxygen

-Over the next few days, skim out debris at the bottom with pipette

-After a day in this tank, feed ~50-100 mL *Platymonas* culture every day (will need to make a small subculture that you tend to as you go [see Culturing *Platymonas*]. This works better to feed than crushed yeast, the water stays cleaner).

-May have to add ~500 mL artificial seawater every 4 or 5 days or so (should be ~2 cm deep)

**PRACTICE THIS BEFOREHAND!!!!

**THE OLDER THE SHRIMP FOR 152 THE BETTER!!!! At least a week old – plan to start cultures accordingly

Items Needed:

-1 bubbler with air tube

-1/2 Tbsp brine shrimp eggs

-Instant Ocean (4Tbsp)

-Sodium Bicarbonate (8g)

-1 - 1500 mL beaker

-1 – 300 mL beaker (to make 2L artificial seawater)

-1 plastic pan/tray

-small *Platymonas* culture for shrimp food

***The actual lab only uses about 250mL worth of shrimp all week – these can be put in a beaker and left in the classroom, just feed a little of the leftover algae at the end of every day!