



HATCHING BRINE SHRIMP...

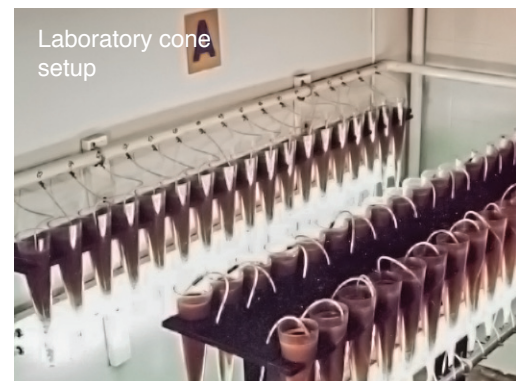
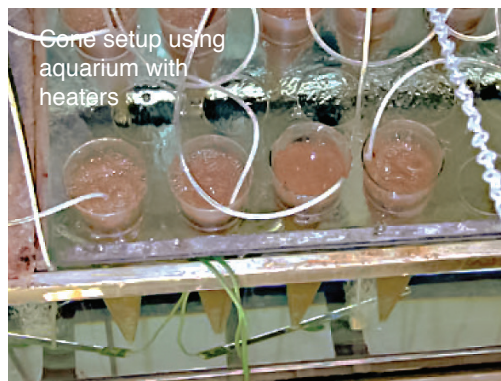
INTRODUCTION

Freshly hatched brine shrimp eggs are one of the best foods available for fish fry, reef tanks and small aquatic organisms because they provide proteins and fatty acids which accelerate growth and increase survival. As you will soon discover, nothing stimulates the appetite of baby fish like baby brine shrimp!

SOME TIPS BEFORE YOU START

USE A CONE!

A cone or funnel shaped container is by far the best design for a brine shrimp hatchery. Glass juice containers and other household containers may work, but they aren't nearly as convenient or as effective as the hatcheries available at your local pet shop or aquarium. For best results use the San Francisco Bay Brand Hatchery™ which uses an inverted one liter or larger soft drink plastic container. Although this is not exactly funnel shaped it does taper towards the bottom and provides many of the benefits of a funnel shape. Just make sure that the material that the container was made of is totally inert so as not to affect the hatching process. If the bottom of your hatchery is funnel shaped, the hatching process itself is enhanced and it will be easier to collect the nauplii once they hatch.



KEEP IT CLEAN!

The cleaner you keep your hatchery the more likely your hatch will be successful, time and again. After each use, scrub your hatchery with a soft, soapy nylon sponge and rinse afterwards; then wash the cone with diluted household bleach. Don't forget to rinse it with plenty of tap water.

DON'T OVER HATCH

Avoid the temptation to over hatch. In fact, you should never hatch more than 2.5 grams of eggs per liter of water. By using fewer eggs, a greater percentage of the eggs will hatch which means you get more baby brine shrimp for your dollar.

WATCH THE TEMPERATURE!

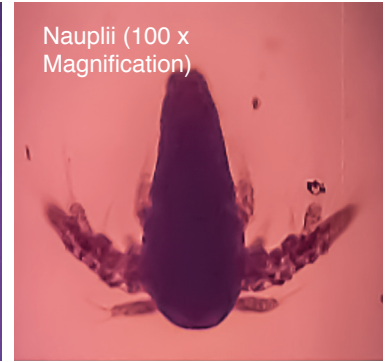
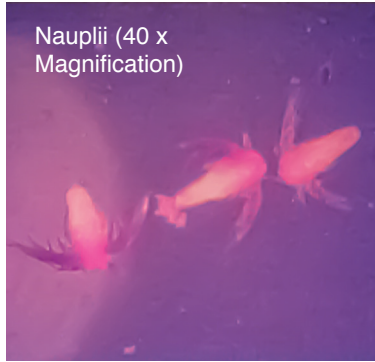
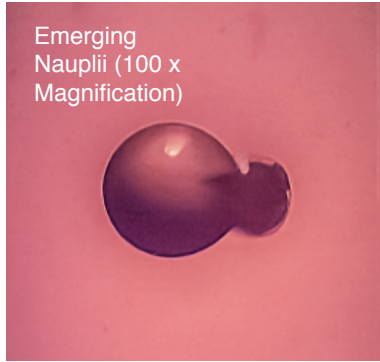
The hatching rate of brine shrimp cysts is very sensitive to temperature. Most of your eggs should hatch in 24 hours if the temperature is roughly 82°F (28°C). If the temperature is only 70°F (21°C), you might have to wait up to 36 hours to get a good hatch. By increasing the temperature, you increase the rate of hatching. But be careful. As the temperature exceeds 86°F (30°C), you become more likely to lose some of your hatch. Be safe- hatch between 82°-86°F (28°-30°C)!

SALINITY AND PH

The rate of hatching also depends on salinity and pH: the less salt in the water, the easier it is for brine shrimp to absorb enough water to burst through their protective shell. But, specific gravity should be at least 1.011 (15ppt) and can be as high as 1.030 (40ppt). This means that if you're hatching in 1 quart, or 1 liter, of ordinary tap water you should add somewhere between 1/2 and 2 level tablespoons of salt. The pH of the water should also be between 8.0 and 8.5. If your pH is below 8.0 the hatch rate will drop dramatically.

AIR AND LIGHTING

A continual source of aeration and good illumination increases the rate of hatching. Fluorescent lamps are best for the light source, but any 60-100 watt bulb placed a few inches from your hatch cone will work fine. Be cautious of a light source which might overheat your hatchery!



HATCHING INSTRUCTIONS

For best results use a [SFBB Hatchery® \(item# 66190\)](#) or [SFBB Shrimpery® \(Item# 66170\)](#) and [SFBB Hatch Mix® \(Item#66200\)](#) or [SFBB 6g Eggs \(Item# 65031\)](#).

4 EASY STEPS TO HATCHING

As we noted earlier San Francisco Bay Brand offers a Hatchery® (Item # 66190) and Shrimpery® (Item # 66170) which contain everything except the air pump (only the Hatchery® requires an air pump) and water that you need. But if you want the challenge of putting together the material yourself, this is your parts list:

- Hatch cone
- Brine shrimp eggs
- Aquarium rock salt
- Small air pump
- Baking soda
- Shrimp net
- Epsom salt
- 60-100 watt lamp

STEP 1: HYDRATE

- Set up your hatchery in a room that is between 70-86° F (21-30°C).
- Position your source of light about 8 inches from your hatch cone
- Fill the hatchery with 1 liter (about 1 quart) of tap water (or salt water if it's readily available).
- Place an airline inside the cone so that the opening nearly touches the bottom.
- Connect the other end to a small aquarium air pump. Adjust the airflow until you get a steady stream of bubbles that start at the very bottom and rise to the top. Place your air pump higher than the hatchery to prevent back siphoning.
- Add 1 teaspoon of eggs (or the entire contents of one Hatch Mix® packet Item# 66200).
- Allow the eggs to soak up water (hydrate) for one hour before proceeding.

STEP 2: INCUBATE

- Continue to aerate and illuminate the hatchery.
- Your finger or a spoon to push the ring of eggs (which tend to collect at the surface) back into the water. Why not use one of those empty yellow bottles of mustard or cheap squirting bottle.
- Add salts:
 - a. Skip this step if:
 - i. You are using our Hatch Mix™ Packets. The Hatch Mix® contains all necessary salts.
 - ii. Or, if you used salt water instead of tap water.
 - b. Add 2 tablespoons of rock salt (non iodized salt) and ¼ teaspoon of Epson salt.
 - c. Or, add 2 tablespoons of any commercially available artificial seawater mix.
- Add ¼ teaspoon baking soda, unless you are sure the pH is greater than 8.0.
- Allow the eggs to incubate for 24 to 48 hours.

STEP 3: HARVEST AND FEED YOUR FISH

- Disconnect the airline at the end connected to the pump and move your light to the bottom of the cone. Brine shrimp nauplii are positively phototactic (they will move towards the light source).
- Wait 5 to 10 minutes for the baby brine shrimp to swim to the bottom.
- Using the airline, siphon only the orange colored baby brine shrimp from the bottom of the cone into your shrimp net, which you should suspend in a glass of water to prevent damaging the nauplii). Do not siphon the hatched shells which float at the surface.
- Quickly and gently rinse the baby brine shrimp with tap water at your sink.
- Feed each aquarium on as much as your fish can consume in a couple hours.

STEP 4: CLEAN-UP

- Scrub the cone with a sponge and diluted household bleach
- Rinse it well!
- Tightly seal opened egg container to prevent moist air from coming in contact with the eggs and store in your refrigerator until you are ready to hatch again.

If you have further questions about hatching brine shrimp please contact us by e-mail at info@sfb.com. To find SFBB products at local aquarium or pet store visit our store locator by visitng <http://sfb.com/retailers.php>. To buy online visit our links page at <http://sfb.com/resources-links.php>. For a full list of all SFBB brine shrimp egg and brine shrimp egg hatching products visit www.sfb.com.