Culture Your Own Copepods at Home

Drs. Foster & Smith Educational Staff

Copepods can be grown outside of the aquarium system in a culture vessel and then harvested to feed the aquarium. Pod culture can be tricky, some techniques are easier than others, but with some simple equipment and a little dedication, pod culture are achievable.

How Do You Make a Culturing Container?

A clear Rubbermaid® plastic jar with a small hole drilled in the lid works great, though any type of container will suffice. Use an air pump and rigid air tubing attached to a gang valve in order to adjust air flow to a gentle 1 bubble per 3 seconds. Mix fresh/clean saltwater and add that to your container, get the air going and adjust it to the proper flow rates.

What do Copepods Eat?

Pelagic copepods such as the Tangerine, Acartia, and Pseudodiaptomus eat phytoplankton (free-swimming phytoplankton). As a general rule of thumb, the brown microalgae (*T. Isochrysis galbana*) are better than the greens (*nannochloropsis*).

Add the algae (PhycoPure™ Copepod Blend) by the capful until a light tea color is reached. Let it mix for a few seconds, and then add the copepods. Remember it is better to feed lightly more often than once heavily. If your pod population is not very dense, the algae won't clear as rapidly, but as the population grows, the algae will clear very quickly.

Harpacticoids such as *Tisbe* eat detritus, phytoplankton, fish food, fecal matter. Some species of harpacticoid are carnivorous and will eat other types of copepods, but ReefPod™ Tisbe are not, making them perfect for the reef.

What is the Ideal Salinity?

Most copepods handle salinities from 25-35ppt (1.018-1.025+).

What Temperature Range Do Copepods Prefer?

There are warm and cold water copepods. *Tigriopus* is a cold-water copepod; *Tisbe* is a warm water-tropical species. The Tisbe copepod (harpacticoid) will do very well at temperatures ranging from 22-27C°.

How do I do Water Changes?

Change out the entire water once a week for best results. CCollect the entire culture with a 55 micron fine mesh screen and place the screen in a separate water-filled container to prevent the copepods from drying out. Clean the container by wiping it with a paper towel and rinsing with freshwater. Refill the container with new saltwater, add algae and then add your pod culture.

How Do I Harvest?

When you reach a density greater than 1/mL, begin harvesting. It is possible to keep cultures at greater densities, but they will not perform as well if you do. Harvesting can be as simple as scooping the pods out of your container with a cup and adding them directly to your reef tank. Refill what you have taken out with fresh saltwater and algae/phytoplankton if necessary.

Contaminants Happen!

Keep an eye out for Ciliates and rotifers, amongst other things. If you find you're growing a contaminated population, it may be necessary to start over. Why? Because these contaminants will compete for the available food and will outcompete the copepods.

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