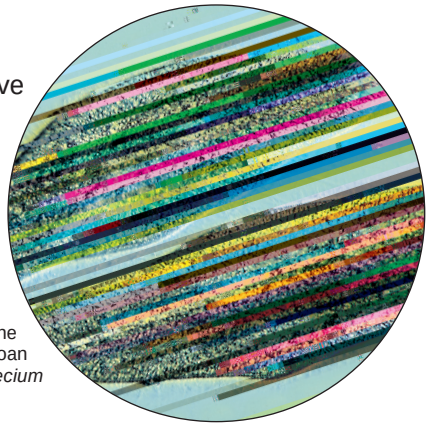
Protozoa

Immediate care and handling

When your protozoa culture arrives, immediately open the shipping container, remove the culture jars, and inspect them for any signs of damage. Once you have verifed that the shipment is intact and not damaged, loosen the lids on the jars. Aerate the cultures using the plastic pipet supplied with each individual culture. Use a diferent pipet for each culture, and write the name of the culture on each to avoid contamination. Aerating helps replace the oxygen depleted during shipment. To aerate, place the top of a pipet into the culture water and squeeze the bulb, bubbling air into the water. Withdraw the pipet and release the bulb, allowing it to refll with air. Repeat the above process 4 more times.



The protozoan *Paramecium*

Sampling and observation

Allow 15 to 20 minutes after aeration for the organisms to settle. Inspect the culture using a stereomicroscope and low illumination. Using the stereoscope will allow you pinpoint the areas where the organisms are concentrated. In preparing slides for viewing, students should obtain their samples from those areas. Using the stereoscope and designated pipet for that culture, students can pick out a single organism (or group of organisms) for their individual slides.

Many protozoans (such as *Paramecia*) concentrate in areas where food particles are abundant. These areas are visible as fuzzy debris within the culture. *Amoeba* can be di f cult to locate at frst because they move slowly and lack a constant shape. To fnd them, focus on the bottom of the jar after it has been sitting undisturbed for at least 15 minutes. Watch through the stereomicroscope for a few seconds and you should begin to see dozens of *Amoeba* as they creep slowly across the bottom. You will also see a faster moving organism called *Chilomonas* (a tiny fagellate) moving about the *Amoeba* culture. *Chilomonas* serves as a food source for the *Amoeba*. *Stentor* tends to attach to the sides of the culture jar. Other varieties may concentrate near the surface of the water.

To pick up an organism (or organisms), squeeze the pipet bulb before inserting the pipet into the culture. Release the bulb when the pipet's tip is close to the concentration of protozoans. Keep the pipet vertical as you are drawing the sample to avoid stirring up the culture and scattering the organisms. Do not squirt the pipet water back into the

(**item #885141**), slows the ciliates' movement without killing them. Add 1 drop of Protoslo® to a drop of culture on a slide, mix well, add a coverslip, and observe.

Care and culturing

Photosynthetic protozoans (*Euglena* and *Volvox*) need light to manufacture their own food. Use either indirect natural light or a light bank (such as our **item #158999**) to provide light for these organisms.

Never place protozoa cultures in a refrigerator or in direct sunlight. Maintain cultures between 20 and 22° C (68 and 72° F), with the lid placed lightly over the mouth of the jar. Plan to use the culture as soon after receipt as possible.

Many protozoans are easily cultured. For further instructions on how to culture protozoa, refer to the ***Carolina™ Protozoa and Invertebrates Manual***.

(continued)

FAQs

How long can I keep my cultures before using them?

If possible, use them within 2 to 3 days of receipt; however, most protozoan cultures will remain usable for a week or longer.

Will the cultures last longer if kept in the refrigerator?

We do not recommend refrigeration or rapid temperature changes of any kind for our cultures.

Are these protozoans dangerous?

No, the protozoans in our collection are for general classroom use. They are not parasitic or pathogenic in any way.