

Carolina Biological Supply Company

Introduction to Protozoa

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New Orleans, LA

Session Objectives

- To understand and recognize the different classes of protozoans
- To successfully find amoeba
- To learn tips on short-term maintenance of protozoa
- To learn tips on long-term maintenance of protozoa

Materials: Microscopes

Stereomicroscope

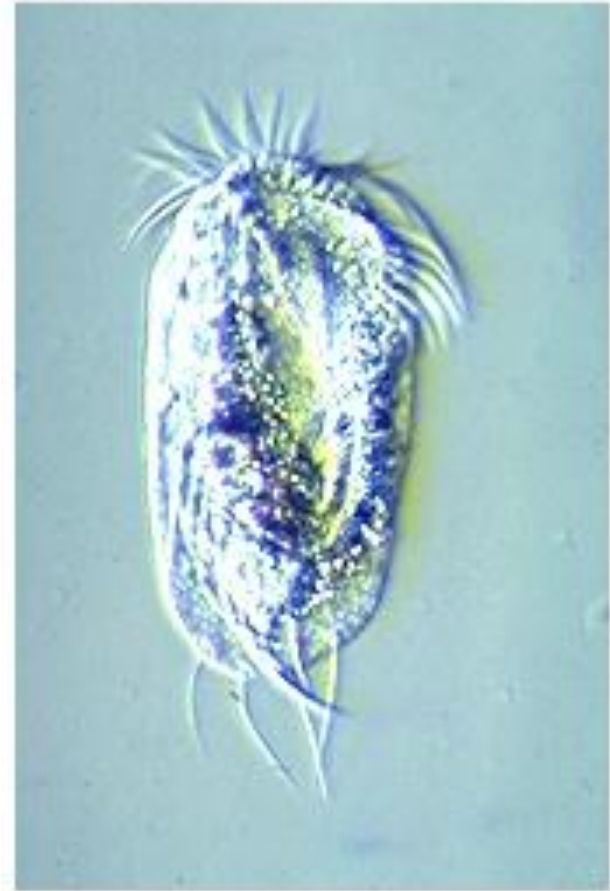
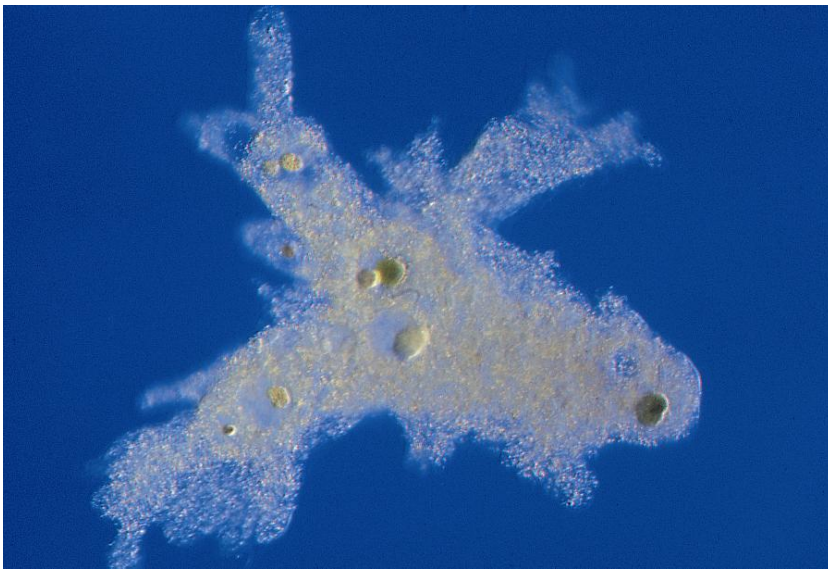


Compound microscope

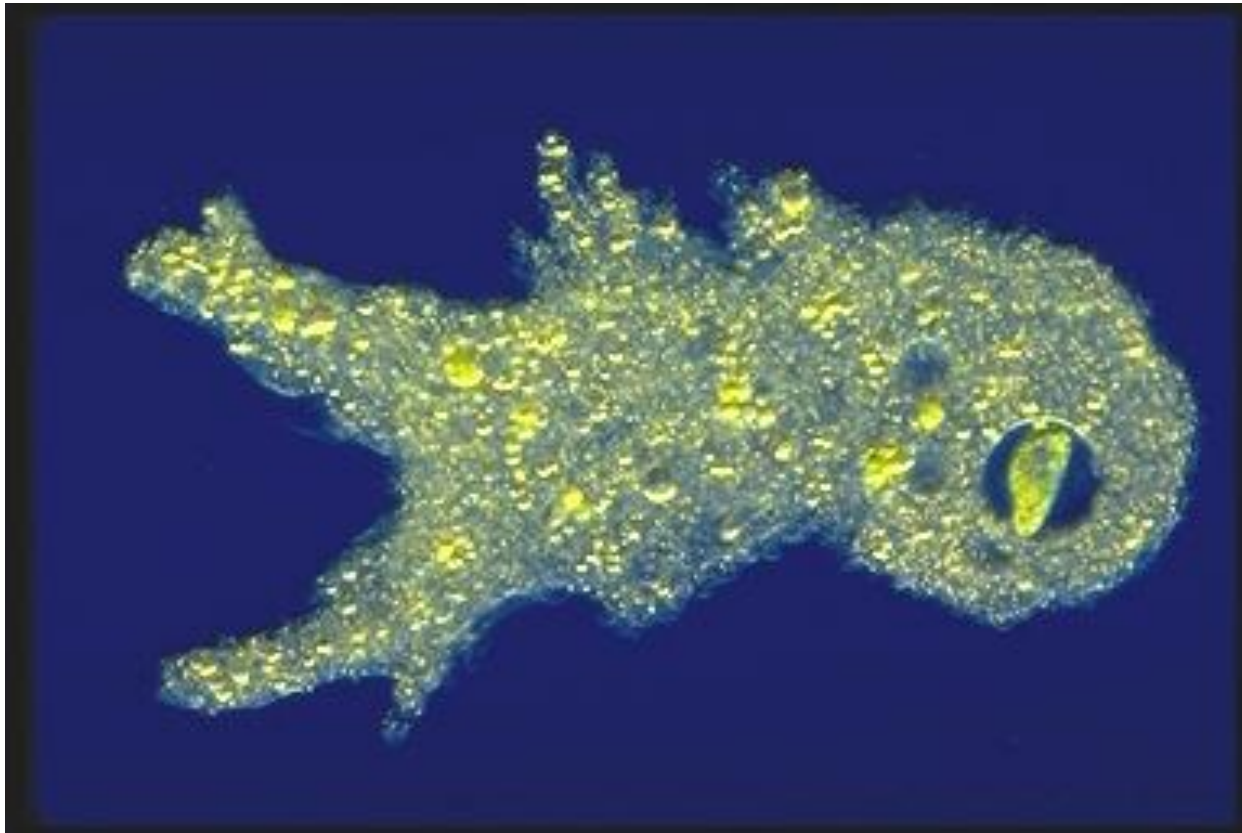


Different Classes of Protozoans

- Grouped by mode of locomotion



Sarcodines



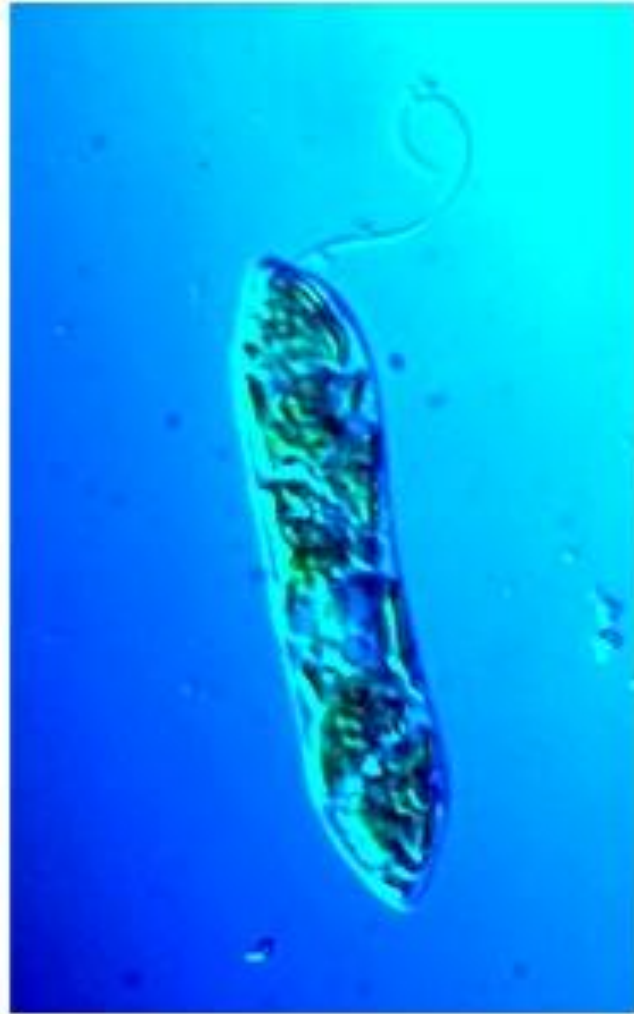
- Movement by pseudopodia

Ciliates

- Movement by cilia



Flagellates

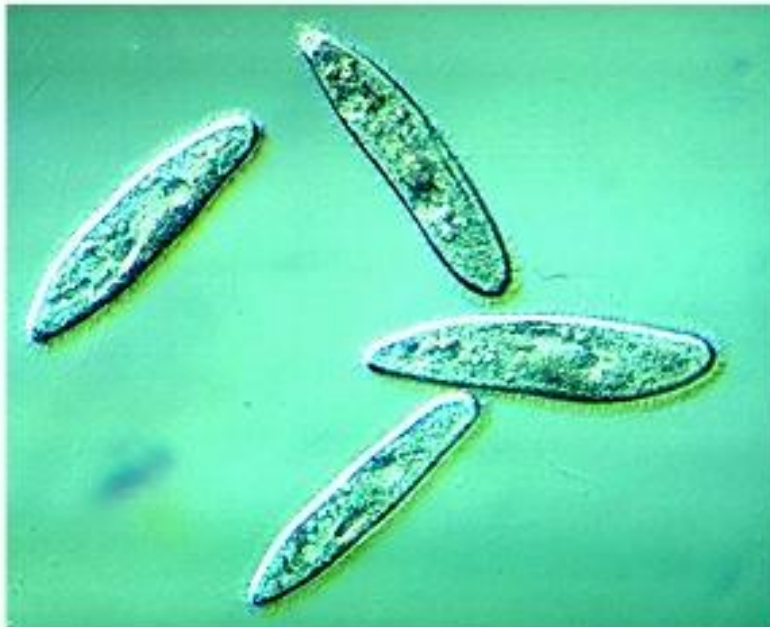


- Movement by flagella

Classify the Protozoan Cultures

Activity #1

- Observe the locomotion under a microscope
- Identify each protozoan's type of locomotion



Classify the Protist

- Gather materials for microscopic activity
- Add a drop of culture to a slide
- Mix with a drop of Protoslo[®] solution
(needed if the protist is highly motile)
- Observe under the microscope

Find the Amoeba

- Let culture jar/sit 30 minutes
- Carefully pour off $\frac{3}{4}$ of culture liquid
- Keep poured liquid
- Most congregate at bottom
- Appear more concentrated

Euglena Phototaxis:

Take Home Activity

- Obtain materials
- Add euglena to phototaxis container
- Cut an image in black paper
- Wrap paper around container
- Place container in light

Shooting Trichocysts

- Obtain materials
- Add paramecium
- Add Protoslo[®] solution
- Observe paramecium, add vinegar
- Action is immediate

Short-Term Maintenance

Once received:

- Immediately loosen cap/check contents
- Leave caps loose
- Maintain constant temperature at 70° F
- Keep out of direct light
- Store in culture jar up to 7 days

Long-Term Maintenance:

Subculturing

- Carolina Spring Water (13-2450)
- No soap or detergent on culture vessels
- Maintain at a constant 70° F
- Timothy Hay (13-2385)
- Euglena Concentrate (13-2320)
- Liquid Protozoa Nutrient Concentrate (13-2350)
- Protozoan Pellets (13-2360)

Quote for the Day



“In the past summer I have made many observations upon various waters, and in almost all discovered an abundance of very little and odd animalcules . . .”
Antony Van Leeuwenhoek, 1675

National Science Education Standards

“Students at all grade levels and in every domain of science should have the opportunity to use scientific inquiry and develop the ability to think and act in ways associated with inquiry including using appropriate tools and techniques to gather data.”

Standards Met

- Standard #1: The Cell
- Standard #2: The Interdependence of Organisms
- Standard #3: Behavior of Organisms

Resources from Carolina

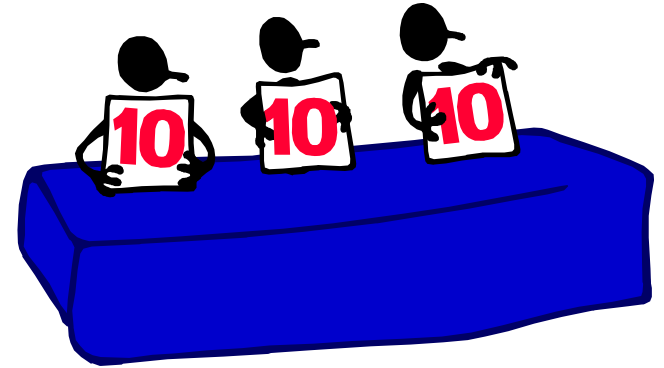
- Protozoan cultures and mixtures
- Protozoan kits and sets
- Protozoan culture media and supplies

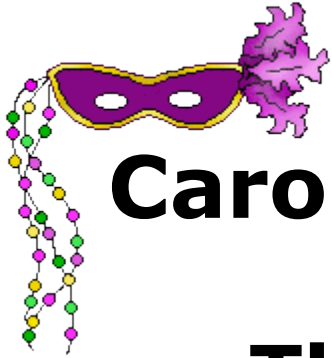
Review of Objectives

- To understand and recognize the different classes of protozoans
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Evaluations: Share Your Thoughts!

- Scale = 1 to 10
- **10 = Outstanding**
- **9 = Above Average**
- **8, 7 = Average**
- **6, 5, 4 = Below Average**
- **3, 2, 1 = Well Below Average**
- **Please provide comments!**





Carolina Biological Supply Company

**Thank you for investing your
time in our training program.**

**For all of your classroom
needs, check out our website,
www.carolina.com.**

**Enjoy the rest of the
conference!**