

## PROTIST LAB: EXAMINATION OF POND WATER

Purpose: Examine live specimens in a sample of pond water, identifying, if possible, examples of amoeba, spirogyra, paramecium, and euglena.

### Materials:

- packaged sanitary sample container
- eyedropper
- microscope
- (optional) microscope digital camera and software installed on your laptop
- protist diagrams
- jar lid
- blank microscope slides
- blank slide covers
- lens cloth

### Procedure:

1. Identify a location at the edge of a pond that is shallow, looks healthy, and contains algae or pond scum.
2. Unpackage the sanitary sample container and unscrew the lid.
3. Submerge the sample container in the water and allow water, silt, and pond scum to flow in.
4. Cap the container.
5. Set up the microscope and, if desired, microscope digital camera.
6. Clean a blank microscope slide with lens cloth.
7. Clean a blank slide cover with lens cloth.
8. Use the eyedropper to take a sample of pond water. Make sure to include some pond scum.
9. Put one drop of pond water on the center of the blank slide. Set the slide cover on top.
10. Set the microscope to 4x power (the lens is 10x power, so the total magnification is 40x).
11. Examine the pond water under 40x. Search for any signs of movement.
12. Sketch the view at 40x in your lab notebook.
13. Center the view on an interesting part, then turn the microscope to 100x. Search for life, and try to identify any protists that you see using the protist diagrams.
14. Sketch the view at 100x in your lab notebook. Diagram any identifiable protist features using the protist diagrams.
15. Center the view on an interesting part, then turn the microscope to 400x. Search for life, and try to identify any protists you see using the protist diagrams.
16. Sketch the view at 400x in your lab notebook. Diagram any identifiable protist features using the protist diagrams.