First lab instructions:

* You must sign the form that certifies you have been informed about safety procedures before leaving the laboratory.
* You are to pick a computer on which to maintain your journal. If after starting the computers, there is a folder for your lab section, use it. This is your capture or destination folder. This is where your journal will reside while you are in the lab. **Follow your lab instructor’s directions as to which subfolders in which to put text and pics versus films and how to create and label your own subfolders.**
	+ - * + To create a folder click on new folder under file



* + To name the new folder, click on the old name (untitled folder \_\_\_). It should turn light blue and allow you to type in new name.
* **The objective of the first lab is become acquainted with the stereo scopes and software you will be using this term. After reading these instructions, you should use download from the website, instructions for using iMovie. IMovie is a software package that will interpret the camera’s signals into live video of specimens under the microscope and enable you with one click to obtain photographs or turn the live video in movies.**

**Your laboratory instructor will probably start you off with some safety information and then some instructions about handling and working with the stereoscopes. Pay particular attention to the instructions regarding how to control lighting and that the stereo is in the proper mode for filming. After that demonstration you should be ready to start filming after reading the rest of these instructions and then downloading iMovie from the web site. Happy filming!**

Protocol:

To convince us that you have accomplished this objective at lab’s end there should be one short BTV movie in your folder, and two tiff file that has been edited in Photoshop elements. Both files need to have arrows and text added to the photo.

**Activity A**

1. Every pair of students obtains a photograph (tiff file) of **1.. A *Daphnia and a Brine shrimp* (place a ruler in the photograph) and 2. Make a short movie of *Daphnia and brine shrimp locomotion***. Brine shrimp may be mating, if so, try to capture a 2nd movie showing how males clasp females during mating. Use the instructions on how to capture images and video found on the schedule.
2. **Edit your photographs in Preview**. Instructions for using Preview can be found on the website.
3. **You should label two structures (one of which should be the heart in Daphnia) in *Daphnia and Brine shrimp* using the diagram in the PDF entitled Working with *Daphnia or the Doc on the life cycle of brine shrimp.*** Be careful, many students have mistaken the moving gills as the moving heart. You should be able to comment on and distinguish males and females brine shrimp. Do not spend a lot of time trying to distinguish the sexes in *Daphnia magnum.* Males in this species are only produced at certain times of the year and you may not have males in your culture. Can you tell whether “winter or summer” eggs are present?
4. **Trim your movie to one or two short 1-2 minute video clearly showing how *Daphnia or one of the shrimps* uses their appendages in locomotion.** To do so use the instructions for Quicktime 10 player and/or iMovie. In any case do not record for more than about 2 minutes at any one time. Movies more than 2 minutes long are difficult to work with and you will spend an enormous amount of time trying to trim them. It is easier to edit and then combine several short movies later if you wish to produce a longer clip.
5. **These documents should be accompanied by a word file clearly titled with your last name that documents what you contributed to the joint effort.**

**Always receive your instructor’s permission to leave the laboratory at the end of the period. If you are not officially excused, you can be counted as absent.**

 **Before leaving lab, you should experiment with all three software editing packages.**

Again, iMovie is the software to be used to capture photographs and videos. You will be using Preview to edit stills and Quicktime or iMovie to trim videos. All three manuals are available on the course website for download as Word docx files.

**A word of caution**. Keep your desktops clean. Always trash by dragging, any unwanted photographs and movies into the trash. **Check your folders before leaving, are all the photographs and movies you wish to keep there.** You may keep as many photographs and movies as you wish, but it will be easier on you when you have to turn in your journals to pick the best one or two out of five to submit for grading, instead of the best one or two out of 20. Remember to work on the accompanying text file at laboratory’s end. If you do not record your observations as you go, you will forget exactly what you did and have to spend extra time trying to re-create your experience at grading time.