Microbiology Lab Experiment Changes

Experiment #: none – see 3-3 for example pictures.

Title: Free Living Protozoa

Live Organisms: Possible: Amoeba, Paramecia, Euglena, Rotifers, Volvox and many other things I can't identify.

Changes: Procedure

1. Make wet mount slides of pond sample following the directions in the lab manual.
2. Methyl cellulose = Protoslo
3. Hint: Put drop of Protslo on slide first, spread it around a little bit then put a small drop of pond sample into the Protoslo.
4. Make drawings of organisms that you observe.
5. Can you determine the method of locomotion for the organisms you are observing?

Take Home Lesson: The purpose of this exercise is to become familiar with some of the common protozoa found in lakes and ponds. Describe the three kinds of locomotion exhibited by different protozoa (i.e., cilia, flagella, pseudopods)

Microbiology Lab Experiment Changes

Experiment #: none – see 3-3 for example pictures.

Title: Parasitic Protozoa

Live Organisms: none

Changes: Prepared slides of *Trypanosoma* and *Plasmodium*

Take Home Lesson: Protozoa can cause diseases. *Trypanosoma* causes African sleeping sickness. It is in the Superclass Mastigophora. It is extracellular. *Plasmodium* causes malaria in humans and animals. It is in the Superclass Sporozoa. It is intracellular. You must be able to recognize the signet ring stage of *Plasmodium* reproduction in an erythrocyte and recognize trypanosomes in blood. Both infections are mediated by insect vectors.

Classification of Protozoa based on locomotion*:
(*note classification of protozoa is complex and varies)

Subphylum Ciliophora – ciliates
Subphylum Sporozoa – apicomplexa
Subphylum Sarcomastigophora

- Superclass Mastigophora – flagellates
- Superclass Sarcodina – amoebas

Give an example from each group and the mechanism of locomotion for the ciliophora, mastigophora, and sarcodina.