

Soil Community Observation Lab

Purpose: To analyze a soil sample as a model of an ecosystem community.

Materials:

Very large piece of paper	Scoopula
Soil (about 2 liters)	Sketching paper; pencil
Collecting dish (petri)	TSA/MEA plates (tryptic soy agar for
Forceps	bacteria - pink; malt extract agar for
Dissecting microscope	fungi -yellow)
Alcohol	

Procedures:

* NOTE: All specimens to be viewed on the dissecting scope **must** be in a clean collecting dish.

Cover your lab station with a very large piece of paper.

Define the physical environment from which the soil sample came.

Systematically sort through the soil.

Separate animals from plants (including dead/decaying plant material).

Sketch all of the community members you find. Identify them *to the best of your ability*, note the size or magnification, and indicate whether it is a producer, consumer, or decomposer...see sample below. (at least 6)

Inoculate both agar plates. Use dead, decaying plant matter for MEA plate, and a small amount of soil for the TSA plate.

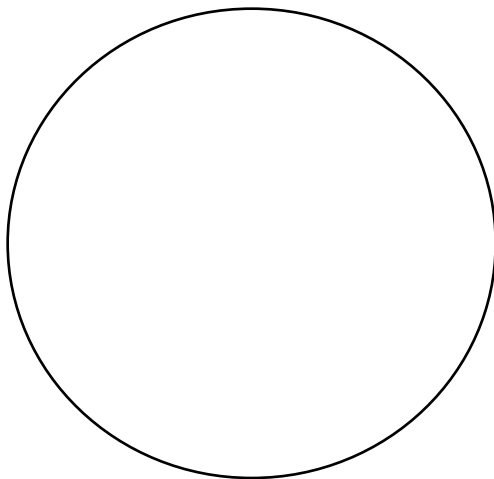
Evaluate the growth of fungi and bacteria on the agar plate after 3-4 days.

Analyze the relative abundance of producers, consumers, and decomposers.

Consider the community members not present in the sample, but whose contributions were evident from observations or physical evidence.

Draw a food web for a soil community with at least 5 connections.

Write a hypothesis about a soil community.



Title _____

Magnification/size _____

Niche _____