Student Essay on Ecosystem Lab

Ecosystem Lab

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Essay

Introduction: In Biology we each attempted in groups to create are own ecosystem that could maintain it self forever without outside interferences. We had the choice of a terrestrial ecosystem or an aquatic one, in my group we choose terrestrial. Our terrestrial ecosystem was formed in a bottle that was sealed virtually airtight. We were hoping the ecosystem could maintain it self if we put enough plant life in it to create enough oxygen for the organisms and if we put enough water in to support all the life forms. The water was supposed to condense into the atmosphere of the bottle and then release when it couldn't support anymore.

Materials: 2 Leiter plastic bottle, water, moss, 1 cricket, 1 inch of soil, 1 block of grass, 1 red worm, 2 meal worms, meal for the meal worms, gravel, thermometer, and pH paper

Procedure: The first thing we did was collect our materials and begin to cut the bottle, we cut about the top third off. After removing the top we placed the gravel in then the soil, red worm, grass and moss, cricket, and mealworms. We then proceeded to take both the temperature and pH level in the bottle before sealing it. The bottle was then sealed and put on the windowsill from 9/25 through 10/4 for observation and documentation. Once we had our observations, data, and conclusion and we took our final measurements we then disposed of the bottle and its contents.

Data:

Conclusion: In the ecosystem we created we began with a cricket, red worm and two mealworms we were left with dead bodies and moldy food. As you can see we did not create a self-sustaining ecosystem. The reasons for this is that we put the bottle in intense sunlight for to long, did not include enough water/food and we did not plant the plants deep enough to complete their tasks. Unfortunately this experiment disproved our hypothesis and denied us the chance to witness an ecosystem grow and evolve. On the plus side I believe we learned much for through failure then we would have if we had succeeded because this showed not only what was wrong about how we created the ecosystem but why it was wrong. In addition through our mistakes we were able to create limiting and necessary factors to create a correct ecosystem.