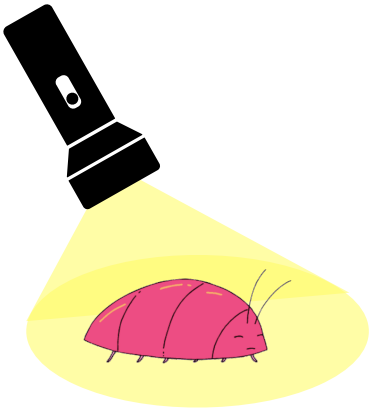
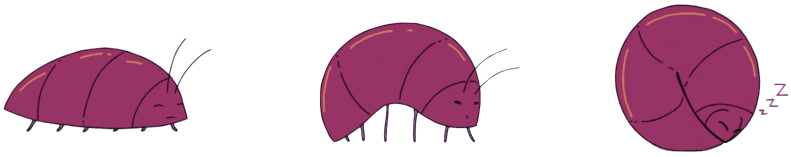


Wood Bug Lab

William, Evan, Nathen, Matthew
Ms. Prosperi-Porta
Block 2

Wood Bug Habitat



Wood bugs are very interesting creatures with many different preferences when it comes to food and habitat. The wood bug is in the armadillidiidae family of creatures and has many interesting aspects as while as a well-known name, pill bugs. For example, the wood bug has seven sets of legs and has an exoskeleton (bone on the outside of the body). Due to its scale-like body build, it can roll into a safe ball to protect itself from dangerous creatures. Wood bugs also roll up to protect/preserve their moisture. Apparently, they are not insects at all and are closer to shrimp or lobster. This would explain their love for moister. These pill bugs are often found in moist areas, rotten wood or hidden under objects. Rotten wood is very common place for wood bugs because they prefer to eat dead, or decomposing plants. Wood and Potato is also a favourite on the menu. They can be an issue to common households in the fall and winter because these little creatures need heat. If your house is warm and made of nice delicious wood, then there is no reason to not want to live there. Although a huge threat to the existence of wood bugs are spiders. These even creepier critters like to catch the wood bugs in their webs and eat them for protein. The wood bugs live a really hard life (literally). From trying to find the perfect place to live where there is enough moisture and safety is hard. Although somehow, they do manage to survive with amazing population numbers.

Wood bugs have an interesting appetite. The picture on the right is a good example of what wood bugs like to eat. It is nice dead, moist wood. This is a very common place to find wood bugs. Ironically, they like to eat their own home. A dead tree like the one you see on the right is an amazing source of food for the pill bug and is can feed them for an entire lift time (two to five years).

Surprisingly, the pill bug is very similar to shrimp. That would explain it's mysterious love for moisture. That is what the wood bugs love. With moisture, the wood bugs can stay alive. They even, sometimes they get low on it, that is when their interesting body build comes into play. If their internal body gets dry, they roll up into a ball to preserve their moistness.

Wood Bug Lab Report

Purpose
Can wood bugs find food faster in the light or the dark.

Hypothesis
William: If wood bugs have the opportunity to find food in high and low light exposure, then they will find it faster in the low light exposure.

Evan: If wood bugs are given food in a dark enclosure to find and in a light enclosure to find, then the wood bugs will find the food faster in the light.

Nathan: If the wood bugs head into the dark, then they will find their food easier.

Matthew: If the wood bugs are put in different lighting scenarios and habitat lighting opposite of each other, then the wood bugs will have behavioural difference bu only a small amount since wood bugs like the light and dark.

Lab Materials
- 3 Woods Bugs
- Flashlight
- Dark Room/Shade Cover
- Stopwatch
- Potato
- Containment Area

Experiment Procedure
1. Put containment area in a dark room with potato in a corner.
2. Place wood bug in the corner opposite to the potato.
3. Time the speed it takes for the wood bug to reach the potato.
4. Remove the wood bug from the containment area and shine a light on the containment area.
5. Now place the wood bug in the same corner they were in before and record the time it takes the wood bug to reach the potato in the light.
6. Repeat this process three times with different wood bugs each time.

Experiment Images

Tray in Dark

Tray in Light

Observations

Qualitative

- Moving Slow
- Bring Potato to bug to familiarize it
- Antennas are scanning area and finding out which way to go
- Wants to escape from containment area but is unable to climb the walls
- Spread potato juice in a trail to help the wood bug follow and find potato (creates moisture which is what wood bugs like)
- The wood bug likes to circle around the area
- Move Potato against wall helps the bug find it because pill bugs like to creep on side of walls
- Wood bugs like to sleep in the dark and stay still
- We had to break potato into a smaller piece thinking that it would help the pill bug find it

Quantitative

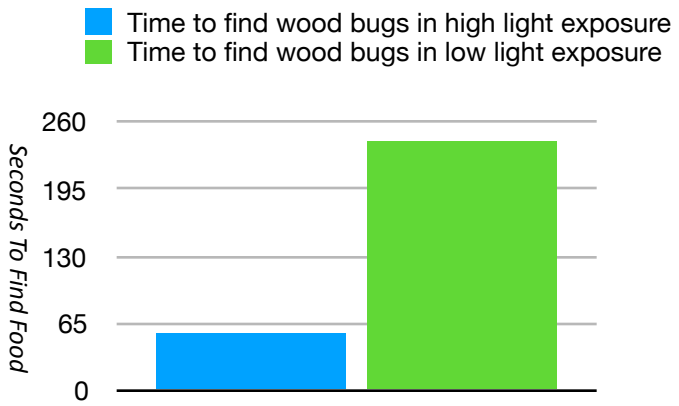
B#	High Light Exposure	Low Light Exposer
1	0:51:93	6:47:00
2	0:30:45	4:35:03
3	1:28:21	0:41:19
A	56.86	241.07

Issues With Experiment

- We had to consistently move the potato closer to the wood bug during the experiment to help the bug find the potato
- Touch bug and interact with the environment
- Very inconsistent movements of the potato
- Different scents from previous experiments are on the trays
- Little water puddles distracted the wood bug from finding the potato (wood bugs like moist water)
- Potato was becoming older and more rotten towards the final few experiments which could have effected the want for it

Data Table

Average Seconds to Find Food



Conclusion

William:

The wood bugs experiment was an exciting and interesting experiment to run. In the end, my hypothesis(being: If wood bugs have the opportunity to find food in high and low light exposure, then they will find it faster in the low light exposure) was wrong. The wood bugs found the food in the light much faster than in the dark. Something that I noticed was that the wood bugs liked to stop moving in the dark. I thought that maybe they were sleeping and low light exposure may trigger that (a more comfortable environment in the dark). The light might have made them awake/energized to look for food. Although we got our results at the end, the experiment was very inconsistent. For example, we didn't have an endless amount of time to watch the wood bugs for 20 - 30 minutes every time. So during the experiment, we modified where the potato was and where the wood bug was in order to stay within time limits (the one hour and fifteen minutes in block two). This made the experiment very inconsistent and inaccurate. So our data is a rough 'estimation'(but we still did record data). Even though our experiment could have been better, we found that the wood bugs were able to find food in the light much faster than in the dark (by 184.21 seconds).

Evan:

The data collected from our experiment shows that my hypothesis was correct. Two out of the three wood bugs were able to find the potato faster in the light, rather than in the dark. The wood bugs found their food at an average of 3:04.21 minutes faster in the light. If I were to do this experiment again, I would use more wood bugs in order to get a more accurate result. I would also exaggerate the procedure by using even lighter and darker rooms, for our data to be more accurate. A possible error in our data is that the potato wasn't placed in the exact spot every time, which could have affected the result. Another factor that could have changed our result is the amount of sun light that we were getting in the light enclosure. The sun would have been brighter later in the class compared to at the start meaning the amount of light would have changed during he experiment.

Nathen:

My hypothesis was if the wood bugs would find there food easier in the dark. Some Of the results do match my hypothesis and some of them don't. We tested three different wood bugs to see if the dark would help the wood bugs find their food which was a potato, but my hypothesis was wrong for the second wood bugs. The wood bugs found it way easier to find their food in the light averaging 56.83 seconds. But in get dark they averages 4 minutes and 14 seconds. The first wood bugs took 51.93 seconds to find the potato in the light enclosure. While in the dark enclosure, it took 6 minutes and 47 seconds. The third wood bug we tested had a faster time in the dark and had a longer time in the light. It took him/her 1 minute and 28 seconds to find the potato in the light. While in the dark, it took 41 seconds to find the potato. I now realize that every wood bugs is difference and has it's differences because before I thought that the wood bugs would love the potato and run straight to it, but this wan't the case.

Citations

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