

Roly poly lab essay



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Pillbug “ Roly-poly’ Behavior LaB Purpose: The purpose of this lab is to observe the behavior of the *Armadillium vulgare* (roly- poly bug), as well as hypothesize whether it will be attracted to, repelled by, or unresponsive to certain substances. Methods 1. Observing the pillbug: examine the pillbugs shell and body, shell shape, color, texture, number of legs, number of antennae, motion, speed, and sex after close examination. 2. Formulate hypotheses: choose substances (powders and liquids) and suggest whether the pillbug will be attracted to, repelled by, or unresponsive to each substance. 3.

Perform an experiment: using a control, test the pillbugs reaction to the substances 4. Compare with classmates: determine whether classmates had similar results when testing the same substance. Data Collected The pill bugs have 7 pairs of legs with 14 overlapping plates. Oval-shaped like a “ pill”. One pair of antennae. Black with lighter spots. The pillbugs climb over each other. The male pillbugs are bigger and darker 3 female pillbugs. Male plays dead on his back when tampered with. The pillbugs roll into a ball for safety. Uropods at the end of abdomen. Legs move in a quick wave-like motion. . As the pillbug moves around in the beaker, the movement of the legs is very quick and fluid; similar to that of a “ wave”. 2. To protect itself from predators, the pillbug rolls itself into an armored ball. Similarly, the pillbug uses its hard exoskeleton as a way to protect itself from the the front help to bring the closer food to their mouths. Lastly, the pillbugs multiple legs allows for it to interact with the environment. 3. When allowed to crawl on my hand, the pillbug moved quickly in a zig-zag motion. I could feel the pillbug as it made it’s way up my arm.

After close examination, I later discovered that the pillbug was able to cling to my skin because of its hook-like tips on its legs. 4. When the beaker is slightly tilted, the pillbugs prefer to move forward toward the top of the beaker. Next, we measured the speed and distance of each pillbug. The results can be seen in the table below. The next step was to formulate hypotheses about the pillbugs reaction to common powders and liquids. The next part of the lab was to then test the pillbugs reaction to the chosen substances and determine whether or not the hypotheses in Table 1. were supported in this experiment. The control in this experiment was water. The final procedure in the lab was to compare our results with the results of our classmates who tested the same substances. The results can be seen below in Table Key: + = towards; - = repelled ; O = no reaction

Summary/Conclusions This experiment demonstrates that pillbugs prefer a wet environment to a dry one. Through our data, we have concluded that our hypothesis, “ if the pillbug is exposed to water, then it will be responsive and move toward it” , is correct.

Even so, we also hypothesized that, “ if the pillbug is exposed to milk, then it will be responsive and ove toward it”; this, however, was proven incorrect after we performed the experiment. On the other hand, several other groups also tested the pillbugs reaction to milk and found that the pillbug moves toward it. To better improve this experiment, we would make sure that there is no trace of water in the path of the the results in the experiment would be the age and gender of the pillbugs.