**General Information**

*Oniscus asellus, Porcellio scaber, Armadillium vulgare*, Armadillidiae, ISOPODA

Sowbugs and pillbugs are about 1/2 inch long, dark gray and oval. Sowbugs are flattened and have two tail-like structures on the rear end of the body that pillbugs do not have. Sowbugs and pillbugs are small animals more closely related to lobsters than to insects. Although sowbugs resemble pillbugs (roly-polies), sowbugs are incapable of rolling up into a ball.

[[](http://www.ces.ncsu.edu/depts/ent/notes/O&T/flowers/note11/pillbug1.jpg)](http://www.ces.ncsu.edu/depts/ent/notes/O&T/flowers/note11/pillbug1.jpg)A female sowbug or pillbug carries her eggs in a pouch for several weeks until they hatch. The young remain in the pouch for a time. About 50 young develop in each brood.

Sowbugs and pillbugs feed on decaying vegetation and sometimes tender vegetation. They breathe by means of gills and live under vegetable debris and other objects lying on damp ground. They are sometimes found in damp basements and crawl spaces, but they do no structural damage. They die soon after and may be swept up. Large numbers of sowbugs or pillbugs in a basement or crawling in the upper part of a house usually mean an abundant number outside.

[](http://www.ces.ncsu.edu/depts/ent/notes/O&T/flowers/note11/pillbug2.jpg)Although primarily scavengers, during wet weather, sowbugs and pillbugs may come indoors and seek refuge under and in potted plants. Occasionally, sowbugs and pillbugs feed on the roots and tender portions of vegetable and ornamental plant seedlings. Feeding would tend to be at night or in the dark. They may infest house plants where they might damage roots if severe.

**MATERIALS:** filter paper, choice chamber, scissors, 10 pill bugs, pipet, water, timer/stopwatch

**PROCEDURE – PART 1**

1. Use template to cut filter paper to fit each side of choice chamber.
2. Use a pipet to drop water onto the paper of one of the choice chambers.
3. Collect 10 pill bugs. Place 5 in each chamber and count how many bugs there are on each side every 30 seconds for 10 minutes.
4. Record data in your own data table.
5. Between data collections note any qualitative data on pill bug behavior to help with your experimental design for Part 2.

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