

Learning the Behavior of Pillbugs

① Purposes

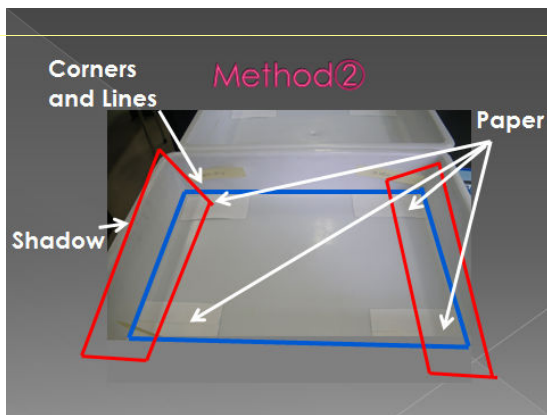
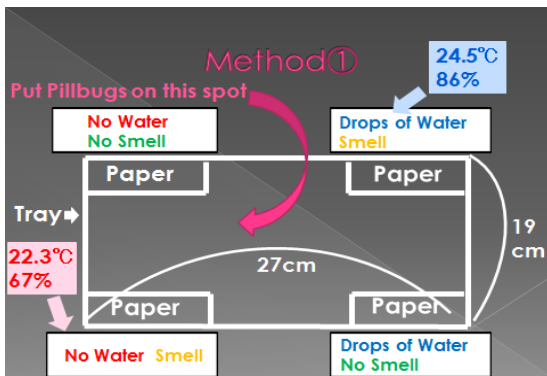
- To research what attracts pillbugs
- To research if pillbugs learn or not



② Materials

- About 2000 pillbugs
- Sheets of papers
- White plastic tray
- Water
- かつおぶし/katuobushi (sliced bonito flakes)
- Soldering iron

③ Method



④ Result

< Result I >

	With Water Drops	No Water
Smell	550 Pillbugs	578 Pillbugs
No Smell	556 Pillbugs	316 Pillbug

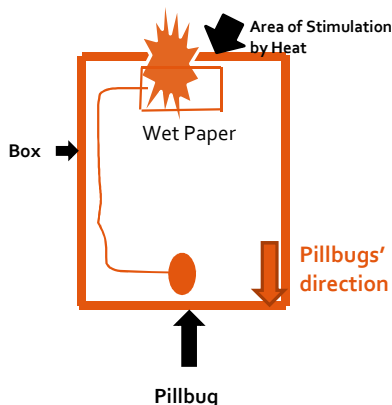
Total of 2000 Pillbugs

< Result II >

Result I		Result II	
No Water	With Water drops	Smell	No Smell
92 Pillbugs	408 Pillbugs	265 Pillbugs	235 Pillbugs
Total 500 Pillbugs		Total 500 Pillbugs	

Humid > Smell

⑤ Future research



If pillbugs learn ways to move by themselves.

⑥ References

- ゴキブリを調べる 古出俊子 (Researching Cockroaches/Koide Syunko)
- ゴキブリの話 石井象二郎 (About Cockroaches/Ishii Zojiro)
- ダンゴムシに心はあるのか 森山徹 (Do Pillbugs Have Minds? /Moriyama Takashi)