**Conclusion**

**Experiment #1:**

Only 35% of the ants who's odor I had attempted to change were attacked by other ants.  This supports my hypothesis, but only to an extent.  This does prove that by changing an ants odor, other ants in the same colony are unable to tell that this ant is part of the same community.  However, I don't know why 65% of the time the ants were not attacked.  Looking at the data, it is evident that all of the ants exposed to a change in odor early in the experiment were attacked more than those later on.  It may be assumed that perhaps the other ants got used to this new odor after several ants were introduced with this smell, and the colony began to ignore it.

    This chart shows the ratio of successful to unsuccessful trials after each individual test.  For example, for the first three trials, 100% of the trials are successful.  Then it drops to 75%, since the next is a failure.

     As this chart shows, the amount of failures increased greatly by the end of the experiment, which dropped the final results to a success of only 35%.  In my eyes, some other factor accounts for this and the overall experiment still proves that ants do base there acknowledgment of one another on a specific odor.

**Experiment #2:**

The results of this experiment were not at all what I had expected.  All of the information that I had read agreed that if the ant's antennae were removed, the ant would not be able to recognize friend from enemy.  The ant should attack fellow ants of the same colony, or walk among enemies.  However, I found that an ant with no antennae would not attack a fellow ant.  some of the ants which had their antennae removed did act differently toward other ants then those that still had them.  These ants were somewhat aggressive at first, and did seem to charge other ants.  Once close enough, they touched the other ants with their heads, then backed away.  It would appear that they were still able to perceive that these other ants were members of the same colony.  They did walk about, some what unorganized from the other ants however.

    From these two experiments, I have concluded that ants do in fact identify one another based on odor.  However, this odor can be detected by other areas other than the antennae.  Also, an ant without its antennae is unable to work function properly with the rest of the colony, so the antennae must play an important role in the ability of ants to communicate their daily activities to one another.

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