



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Becky M. Crouse	Project Number S1103
Project Title Mus minimus's Underlying Behavioral Tendencies to Avoid Open Areas and Seek Walls/Corners	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals In this experiment mice were tested to see if it is true that they prefer to stay next to walls rather than be in an open uncharted area. Research shows that mice are nocturnal creatures that like to live in groups. They are motivated by exploratory behavior to search for potential resources but hesitant due to threatening things such as predators, sharp objects, running water or a cliff. So, they travel near walls as to protect themselves. Their wall-seeking behavior is considered an asocial behavior because they perform it alone or with other mice. There are many other experimental tests to observe rodent behavior such as the Morris water maze, the Open Field test and the Barnes maze.</p> <p>Methods/Materials For this experiment an area made of plywood was needed. After constructing the arenas the mice were placed in them for three minutes. Every ten seconds they were observed by where they were on the board wall, edge, corner, inner corner or middle, different for different arenas.</p> <p>Results The results show that the mice stayed about 93% of their time near walls, corners and inner corners of the inner corner arena. In the wall arena, the mice stayed 95% of their time away from open areas. On average, mice stayed 75% of their 3 minutes near edges in the no-wall arena.</p> <p>Conclusions/Discussion The data supported the hypothesis by showing that mice preferred corners, walls and edges to the open spaces of the arenas. The data also supports mice having underlying tendencies to avoid open areas. In real life this would help others understand why mice traps are set next to walls instead of the middle of the room.</p>	
Summary Statement This experiment was done to see if mice had an underlying asocial behavior to prefer walls/edges/corners than open uncharted area, and 300 trials with ten different mice show that this is true.	
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