



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Taryn R. Holliday	Project Number J1911
Project Title Do Viviparis malleatus (Trapdoor Snails) Exhibit Predictable Behavior?	
Abstract Objectives/Goals My objective was to observe the trapdoor snails throughout the day and record their behavior in tallied charts. My goal was to see if the behavioral patterns could be analyzed to predict snail behavior. Methods/Materials I used trapdoor snails (viviparis malleatus) in ordinary fish bowls and observed their behavior throughout the day. The behaviors were tallied into charts/graphs and analyzed to find shared, individualized, or random behavioral patterns. Results Results indicated that trapdoor snails do exhibit predictable behavior. The larger the snail, the more predictable the behavior. Specific behavioral pattern data showed that snails were on the bottom of the bowls much of the time, (however, they were seldom there together). The snails spent little time on the side, in mating behavior, or together. Conclusions/Discussion The larger snails are older and had acquired a certain set of behaviors. The smaller snails are younger and have not yet learned the specie behavior. The most predictable behavior can be explained by exploring trapdoor snails in their natural habitat. Trapdoor snails prevail on the bottoms of ponds. The tough operculum, or foot, enables it to navigate and survive the bottoms of ponds. When the operculum is closed, the snail sinks easily. From what I observed, trapdoor snails do not like being with other pond animals--even their own type. They do not appear to be social.	
Summary Statement Trapdoor snails exhibit more predictable behavior as they grow older and have special features enabling survival on the bottoms of ponds.	
Help Received Teacher as mentor	