

This topic was chosen because ecosystems are unpredictable. It is unknown what might really happen with living beings, they could all die off due to something completely unrelated to population or they could all adapt to the numbers and survive. Basically, anything could happen and the results depend mainly on the accuracy of the experiment. It is a challenge. The purpose of this project is to find out how fish react to their environmental conditions or standards. Each species is different so the fish experimented on may have a different reaction from others.

Materials and Procedures

Four ten gallon tanks are used in the experiment along with all the other things needed to control the environment in the aquarium, such as, filters, tanks, lights, and plants. For fish, 280 rosy red minnows were used. Tap water was used to fill the tanks and water conditioner to make it safer for the fish. The plants used were plastic décor plants. Gravel was placed in the tanks too; each tank had 20 pounds of gravel. A ruler and a compass were used to measure the length of the fish, and data was recorded in a notebook with data table.

Four tanks were placed in the same room while they were empty. One tank was filled with twenty pounds of gravel and then filled with water until the water level rose to be about two to three inches above the gravel. Then the decorative plants were placed in the tank and the filter, heater, light, and roof were set up using the manual included. Then the tank was filled with water and the water conditioner was added. All four of the tanks plugs were plugged into multi-plugs. The drip loop technique was used to lead water downwards so it doesn't run straight into the electrical cord. The tank was left running for a few days to make it safe for the fish. This was repeated three more times to have all four tanks set up. Then, when the tanks were ready, the correct number of fish (40, 60, 80, and 100) was released to the correct tank and data recording in the data table in the notebook began. The fish were fed once a day. Dead fish were removed with the net. No apparatus is used. A data table that would allow recording of data every five days for each individual fish was used. Each tank had a separate data table. Also used, were a compass, net and ruler to measure the length of the fish. The net was used to push the fish against the side of the tank, and then the compass to get the length from tip of the nose to the end of the tailfin. There were three phases of the experiment phase one was growth from day one to five, phase two was the growth from days five to ten, and phase three was from ten to fifteen.