Which guppies will survive?

John Endler, a researcher at the University of California Santa Barbara, created an experiment with guppies to observe any changes in the population over time. He created a pond environment, lined the bottom with fine gravel, added guppies, and added a predator. The guppies that he added had three different phenotypes for spots: large, medium, and small.

During the experiment the guppies had 15 generations of offspring. After 15 generations he observed the population of guppies to look for any changes.

1. Do you think that the population of guppies will change over time? Why?

2. What are three different things that can cause this population to evolve?

3. Explain how each of three things you stated in question #2 will cause the population to evolve.
   1. __________________________________________________________
   2. __________________________________________________________
   3. __________________________________________________________

4. Which guppy phenotype (large, medium, or small spots) do you think will be the most common after 15 generations? Why?