

## **Trout in the Classroom Essay - Peighton Beatenhead**

At a young age, my dad introduced me to fishing, and at first, I didn't think I would stick with it. Either the worms were too slimy, I couldn't cast as far as he could, or he would always catch the first fish. My dad and I went fishing in our backyard at the pond whenever we could slip away, and if you couldn't find us, we were probably fishing. My dad always taught me valuable lessons about what I was doing. I would get frustrated and sometimes not even catch a fish. One day, he taught me an important lesson when he said, "It's okay if you don't catch anything; that's why it's called fishing, not catching." Sooner or later, I started being the one who caught the first fish, whether it was a baby sunfish, a crappie, or a bluegill. Later, when my dad and I started going up to the mountains, he taught me how to fly fish and explained the different lures and baits you can use. What really got me interested in fishing were the experiences I got to have with my dad.

Stream conservation is the act of stewardship. In class, we learned that measures of water quality include pH levels, which indicate the alkalinity or acidity of the water. Trout need a pH of about 7 in their enclosures, which is easily maintainable, as well as high levels of dissolved oxygen because they live in fast-moving streams. We tested pH and dissolved oxygen levels and observed cases of eutrophication, which consist of algal blooms. When there is agriculture near a stream, it can negatively affect trout populations. Eutrophication occurs when algal blooms form due to warm water temperatures and excessive nutrients in the water. We checked temperature, nitrates, pH, and ammonia levels. Trout are bioindicators because they are highly sensitive to even minor changes in their environment. Bioindicators are organisms whose presence indicates the health of a freshwater stream.

Like in their natural habitat, the trout first arrived as fish eggs. Ms. Luce introduced us to the trout and placed them in acclimated water. Next, the trout hatched into alevins (sac fry), during which they swam around and fed off their egg sacs. In the fry stage, they fed on plankton. Then, in the juvenile stage, they ate insects and macroinvertebrates. Finally, as adults, they ate fish, plankton, and insects. When raising trout in the classroom, we have a higher success rate than in the wild because we can monitor all of the factors that help them survive, including protection from predators.

I have learned that it is very important to practice stewardship, not only for future generations but also for maintaining healthy ecosystems today. We can support stream conservation by using eco-friendly cleaners, making sure automobiles are free of leaks, and planting native trees. Educating others about not littering and helping the environment stay clean can influence their daily choices. Stream conservation is essential because without it, we would have few healthy ecosystems. Stewardship and leadership play an important role in conserving our streams. Conserving streams helps not only fish but also other animals that depend on these environments.

My interest in fishing has led me to think often about how important it is to conserve our Earth for future generations. I also think about how, if we do not keep the animals and habitats we

have today thriving, many people may never get the chance to experience or see these animals in real life. When I have children someday in the future, I would love for them to have those same experiences. When I have Children someday in the future, I would love them to experience the same things that I have. For that to happen, conservation and stewardship will have to play a huge role; they're very important, and I would love to learn more about them.