

Paige Beckman
Aquatic Plants vs. Nitrates

The purpose of this experiment is to find a way to lower nitrate levels in aquariums; this will prevent fish from dying of nitrate poisoning (Brown Blood disease). For testing there were three one-gallon aquariums with four cups of aquarium gravel, and three goldfish within each tank. There were five days of testing that did not have aquatic plants inside of the aquarium, and five days of testing where there were aquatic plants within the aquariums (between the five days of testing with the plants and the five days of testing without, the tanks were cleaned). The aquatic plants used in this experiment were the Anubias Afzelii plant (aquarium 1), the Amazon Sword plant (aquarium 2), and the Umbrella plant/Spathiphyllum Wallisii plant (aquarium 3). I hypothesized that the plant that would accommodate nitrates the best would be the Anubias Afzelii. Nitrate levels were taken every day at twelve p.m. and the data was recorded.

Aquarium one had an average nitrate level of 6 ppm when the Anubias Afzelii was residing within it. Aquarium two had an average nitrate level of 8 ppm when the Amazon Sword was residing within it. Aquarium three had an average nitrate level of 0.4 ppm when the Umbrella plant was residing within it. Data showed that the Anubias Afzelii plant did not best accommodate nitrates, therefore my hypothesis was rejected. Out of the three plants used in this project, the Umbrella plant best reduces nitrate levels in an aquarium.