Week 12 Results Statement

In order to estimate the effect of turbidity and water temperature on chlorophyll-a concentrations in Beaverdam Reservoir, while controlling for the effect of season (date) on changes in chlorophyll-a, I developed a mixed effects model. Through the use of a seasonal factor called ‘month’, I developed a mixed effects model with a Gamma distribution with month as a random effect and turbidity and water temperature as fixed effects. The model output indicates that both turbidity and temperature have significant positive effects on chlorophyll-a (p = 0.0252, p = 0.0125, respectively).