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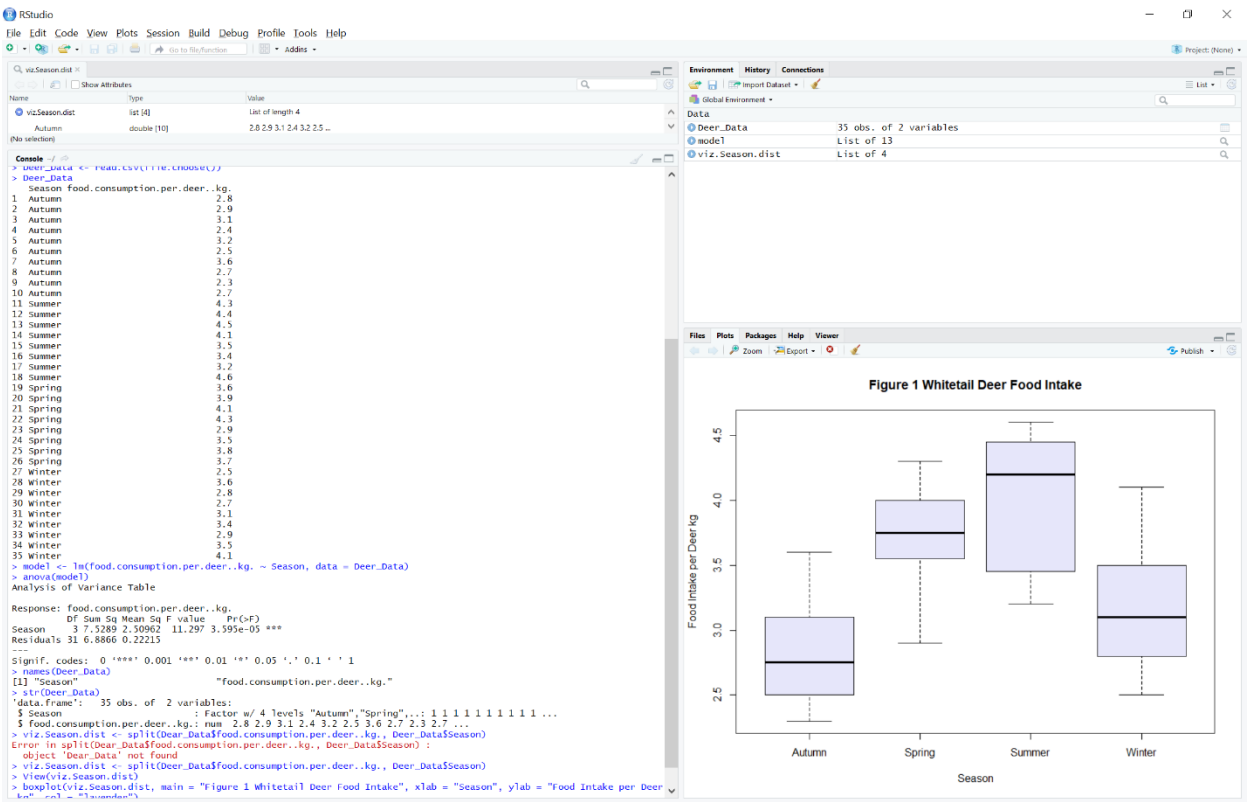
BIOL 603

I tested the effect of seasonal variation on food intake (kg/individual) in white-tail deer from Texas. I first randomly selected deer from Texas in each of the four seasons. I then assigned deer to 9 different samples in winter, 8 different samples in spring and summer, and 10 different samples in autumn. The total replicates were 35 deer samples. I measured the total food consumption in kilograms per deer. The data were then entered in RStudio and I used a one-way ANOVA to test my null hypothesis, using season as the treatment and food consumption per deer as the dependent variable. Alpha was set at 0.05.

Food intake was highest in the summer and lowest in the autumn (Fig. 1). The results of the ANOVA showed that season did have a significant effect on food intake in these deer ($F = 11.297$, $df = 3,31$, $P = 3.595\ e^{-5}$). However, my results do not mean that other sources of variation in deer food intake are not present; future experiments will focus on other potential sources of variation on food intake.



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Analysis of Variance Table

Response: food.consumption.per.deer..kg.
          Df Sum Sq Mean Sq F value    Pr(>F)
Season     3 7.5289 2.50962  11.297 3.595e-05 ***
Residuals 31 6.8866 0.22215
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Figure 1 Whitetail Deer Food Intake