**ENVS 469/696 Problem set 1: Intro to R**

Instructions: Download the CITES data file from Canvas to complete the following questions/tasks. Turn your completed worksheet in on Canvas. [20 points total]

1. Install the packages “tidyverse”, “ggplot2” and “ggthemes”. We won’t be using them today, but they take a little time to install, so it would be better to do it outside of class. Paste your code to install these packages below [1 point]
2. Load the CITES data ("CITES\_trade\_tutorial.csv") into R and save it as an R object called df. Paste your code here [1 point]
3. Check the class of the data. Paste the code and the class type below. [1 point]
4. Have the console print the first 7 rows of the data frame and print the code to do that here. [1 point]
5. Look at the structure of the data frame. What are the data types for the columns Year, Taxon, and Quantity? [1 point]
6. What is the maximum Quantity? Paste the code and answer. [1 point]
7. How many times bigger is the maximum quantity than the minimum quantity? Compute in R and paste your code and answer. [1 point]
8. What are all of the species (Taxon) in the data set? Paste your code and the species here. [1 point]
9. How would you save the 5th element of the vector taxon to a new variable called “species”? Paste your code here. [1 point]
10. Create a new data frame (named whatever you would like) that consists of the unique species names and the unique common names. Name your columns “scientific\_name” and “common\_name”. Paste your code here. [3 points]
11. What are the dimensions of your new data frame? Paste the code and answer here. [1 point]
12. Plot a histogram of Quantity and add a custom title. Paste your code and the histogram below. [2 points]
13. Create a plot of Year versus Quantity. Change the x-axis and y-axis labels to read “Year” and “Quantity”, respectively. Change the points to lines (“l”). Add a title. Paste your final code and plot here. [5 points]