Markdown In-Class Exercise

Table of Contents

[Introduction 1](#_Toc210305055)

[Results 1](#_Toc210305056)

[Tables 1](#_Toc210305057)

[Figures 2](#_Toc210305058)

## Introduction

This exercise will use the **CO2** dataset, which is part of base R. The CO2 dataset is taken from an experiment on the cold tolerance of the grass species *Echinochloa crus-galli*.

The CO2 dataset has 84 rows and 5 variables, including:  
1. Plant ID  
2. Plant origin (Quebec, Mississippi)  
3. Treatment group (Chilled, Nonchilled)  
4. Ambient carbon dioxide concentration (mL/L)  
5. CO2 uptake rate (*umol*/*m*^2 sec)

## Results

The overall mean ambient carbon dioxide concentration was 435mL/L and the overall mean CO2 uptake rate was 27.21 *umol*/*m*^2 sec. Means by treatment and origin can be found in Table 1.

### Tables

Table 1. Summary Statistics

| Names | Mean | SD |
| --- | --- | --- |
| Quebec | 33.54 | 9.67 |
| Mississippi | 20.88 | 7.82 |
| chilled | 23.78 | 10.88 |
| nonchilled | 30.64 | 9.70 |

### Figures

The figure below shows the relationship between ambient CO2 concentration and CO2 uptake in the plants.

#code to create a scatterplot of concentration and uptake  
  
library(ggplot2)  
  
ggplot(data=CO2, aes(x=conc, y=uptake)) + geom\_point(color=4, size=3) + labs(x="CO2 Concentration", y="CO2 Uptake", title="Figure 1. CO2 concentration and uptake") + theme\_bw()

