Jan 21: Work Day

Day 9

Checking in: Have you chosen your dataset?

```
boxplot<- ggplot(data = data)+ #Specify data set
  aes(x = Month, y = Temp, fill = Month)+ #Your aesthetics. Identify your x and y axis
as well as how you want to color code.
  geom_boxplot()+ #What type of figure/plot to create
  ylab("Temperature") + # x label
  xlab("Month") + # y label
  ggtitle("Temperature over each Month")
```

Name your plot variable using an arrow as we have practiced. Above, I simply named my figure “boxplot”. You may want to be more informative with your name (Figure1, TempMonthbox, etc.), or if you’re making many versions make it short (a,b,c).

Console | Terminal | Background Jobs

R 4.5.2 · /cloud/project/

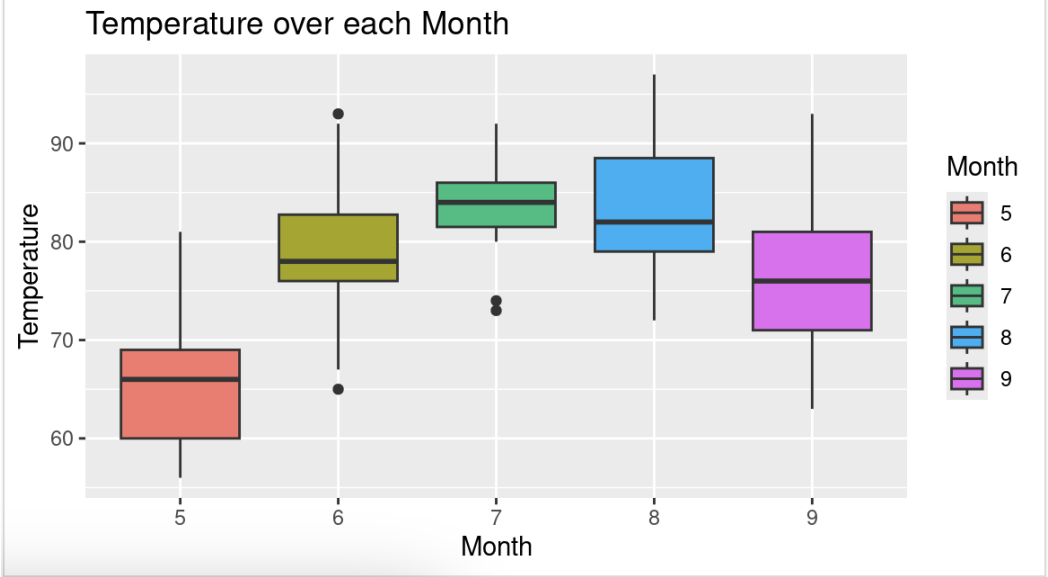
```
> boxplot<- ggplot(data = data)+ #Specify data set
+   aes(x = Month, y = Temp, fill = Month)+ #Your aesthetics. Identify your x and y axis as we
l
+   geom_boxplot()+ #What type of figure/plot to create
+   ylab("Temperature") + # x label
+   xlab("Month") + # y label
+   ggtitle("Temperature over each Month")
> boxplot
```

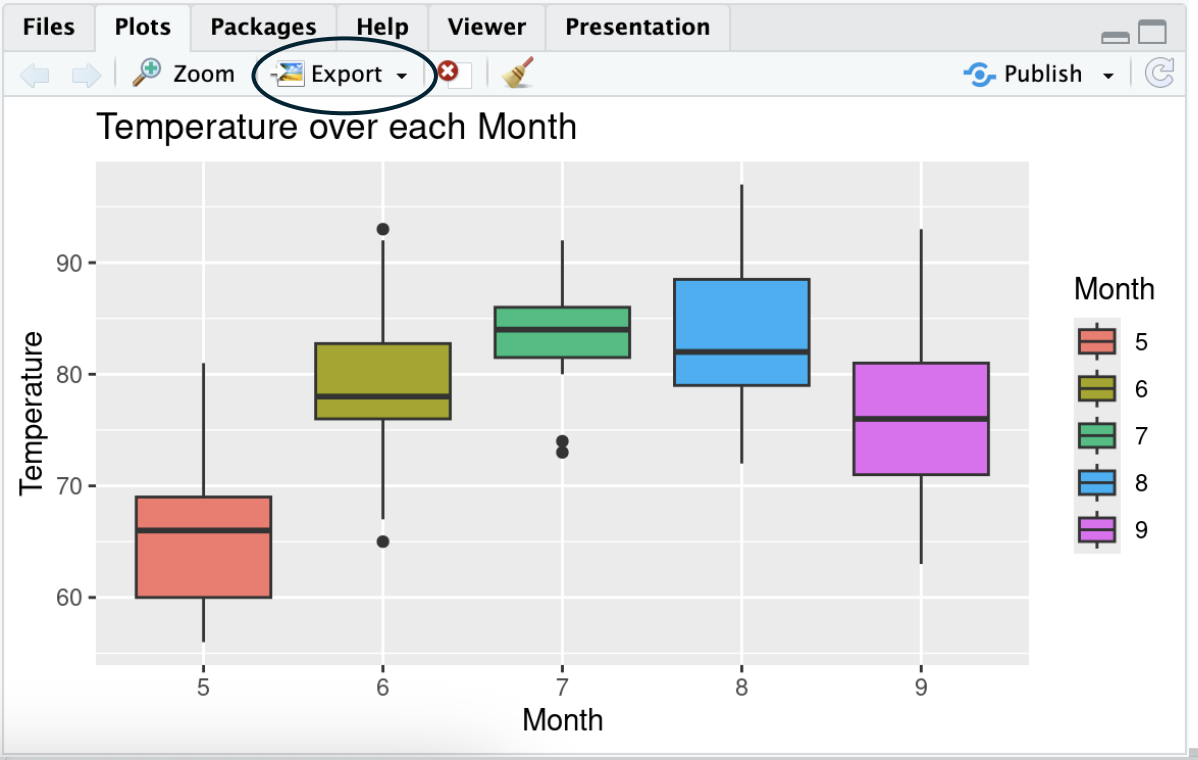
boxplot
boxplot.default {graphics}
boxplot.matrix {graphics}
boxplot.stats {grDevices}

In the console, type the name of your variable and click enter/return. You should see your plot appear in your lower right miscellaneous panel under the Plots tab

Files | Plots | Packages | Help | Viewer | Presentation

Zoom | Export | Publish




Files
Plots
Packages
Help
Viewer
Presentation
Zoom
Export
Publish
Temperature over each Month
Temperature
Month
90
80
70
60
5
6
7
8
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Month
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6
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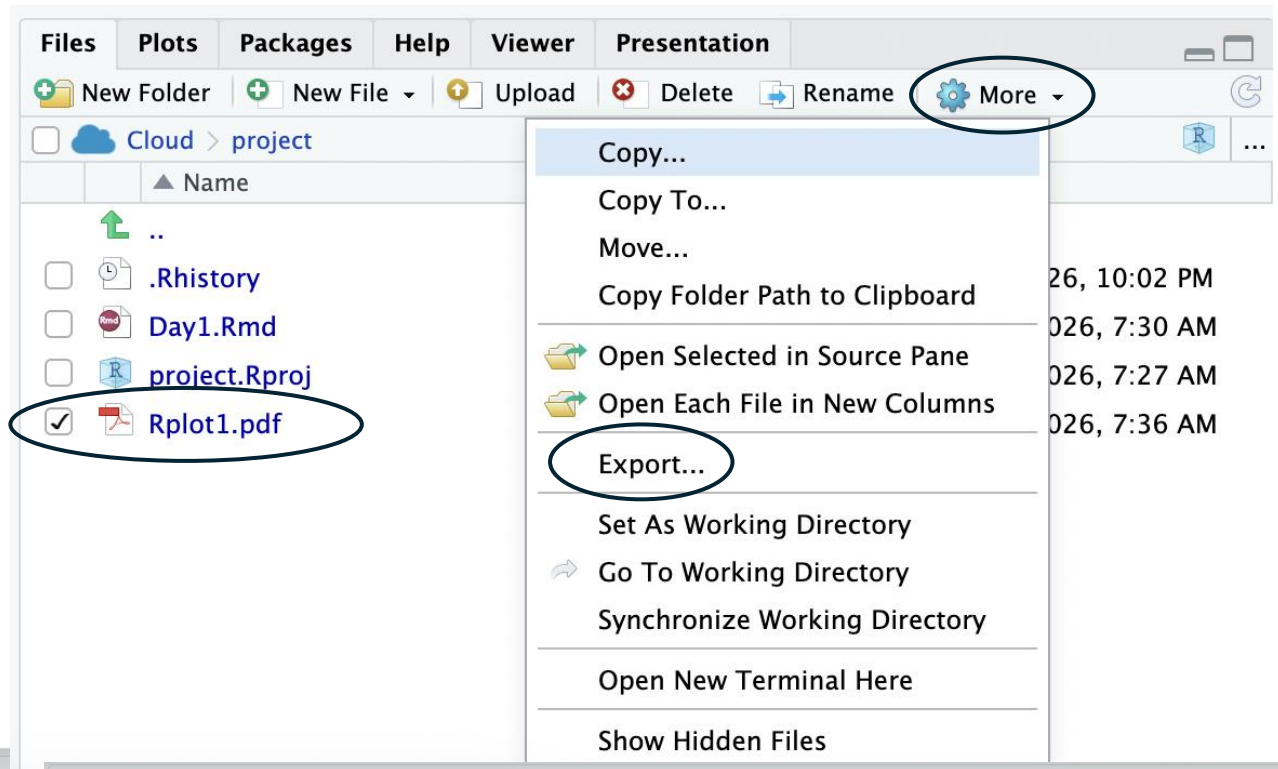
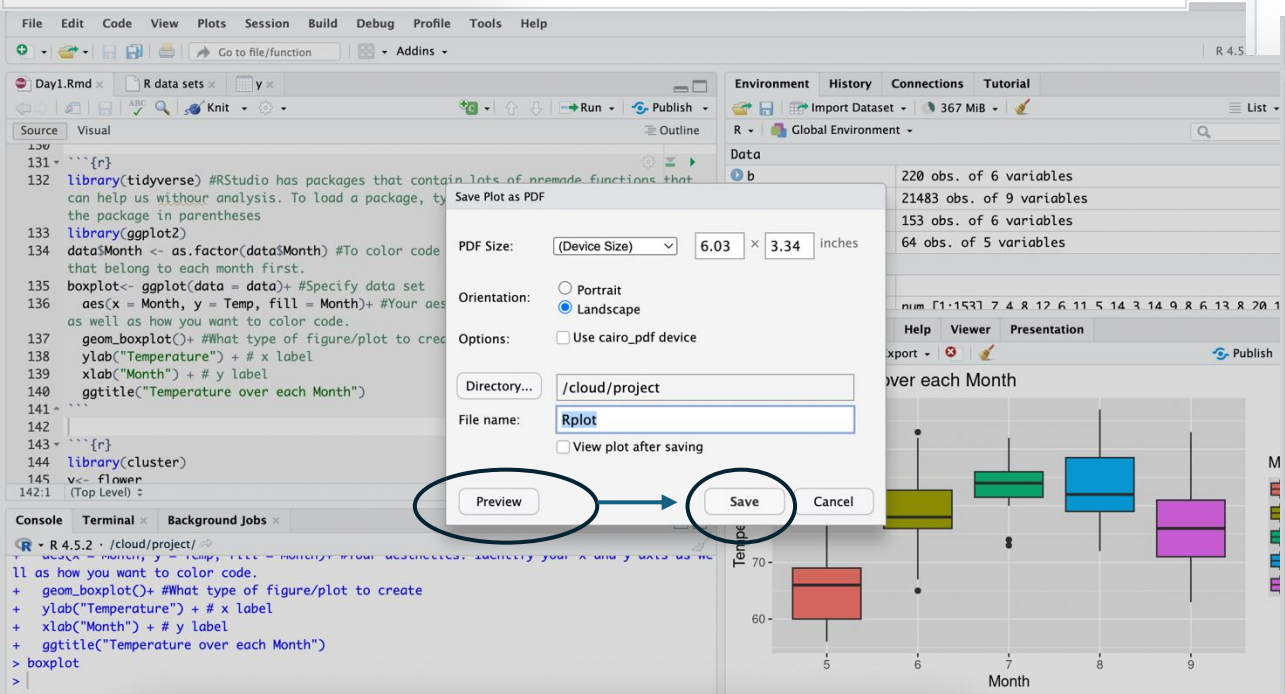
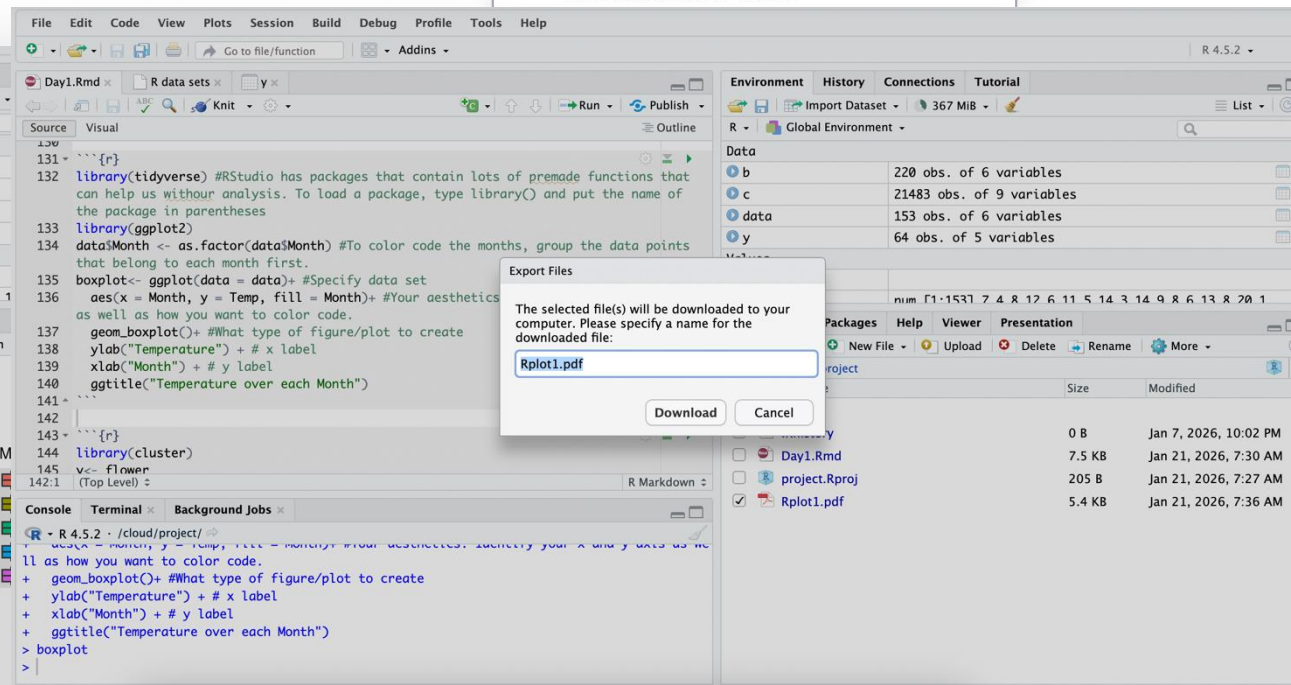
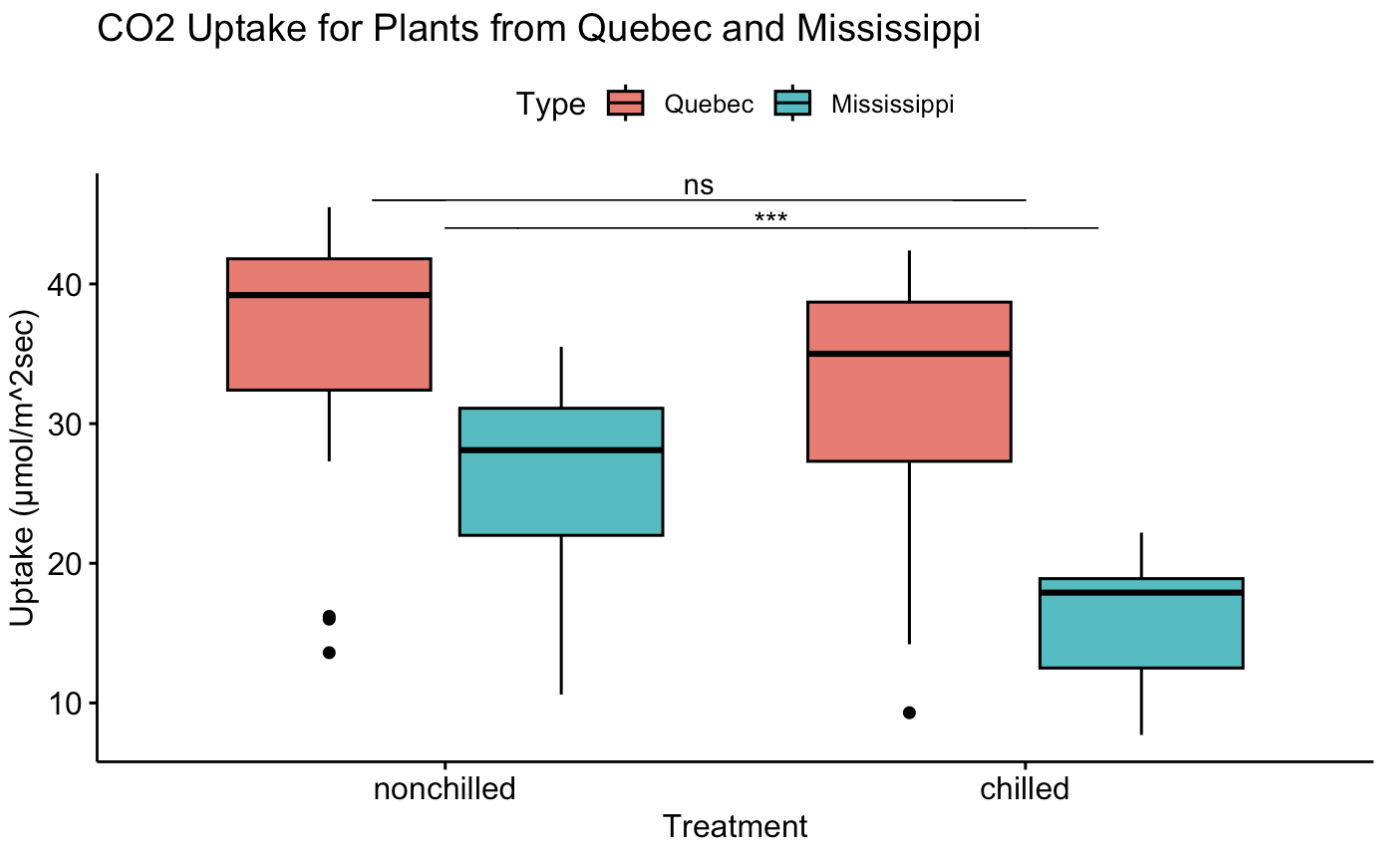
8
9


Files
Plots
Packages
Help
Viewer
Presentation
New Folder
New File
Upload
Delete
Rename
More
Cloud
project
Name
..
.Rhistory
Day1.Rmd
project.Rproj
Rplot1.pdf
Copy...
Copy To...
Move...
Copy Folder Path to Clipboard
Open Selected in Source Pane
Open Each File in New Columns
Export...
Set As Working Directory
Go To Working Directory
Synchronize Working Directory
Open New Terminal Here
Show Hidden Files
26, 10:02 PM
026, 7:30 AM
026, 7:27 AM
026, 7:36 AM


Save Plot as PDF
PDF Size:
(Device Size)
6.03
3.34
inches
Orientation:
Portrait
Landscape
Options:
Use cairo_pdf device
Directory...
/cloud/project
File name:
Rplot
View plot after saving
Preview
Save
Cancel
Environment
History
Connections
Tutorial
Data
220 obs. of 6 variables
21483 obs. of 9 variables
153 obs. of 6 variables
64 obs. of 5 variables
Temperature over each Month
Month


Export Files
The selected file(s) will be downloaded to your computer. Please specify a name for the downloaded file:
Rplot1.pdf
Download
Cancel
Environment
History
Connections
Tutorial
Data
220 obs. of 6 variables
21483 obs. of 9 variables
153 obs. of 6 variables
64 obs. of 5 variables
Day1.Rmd
7.5 KB
Jan 21, 2026, 7:30 AM
project.Rproj
205 B
Jan 21, 2026, 7:27 AM
Rplot1.pdf
5.4 KB
Jan 21, 2026, 7:36 AM


CO2 Uptake for Plants from Quebec and Mississippi
Type
Quebec
Mississippi
ns
***
Uptake (µmol/m^2sec)
40
30
20
10
nonchilled
chilled
Treatment

- What kind of plant or plants?
- What does chilled and nonchilled mean?
- Did they uproot plants from Quebec and Mississippi?
- How many plants were measured?
- What does ns mean?
- What do the asterisks mean?
- What was the purpose of the experiment/what were researchers doing?

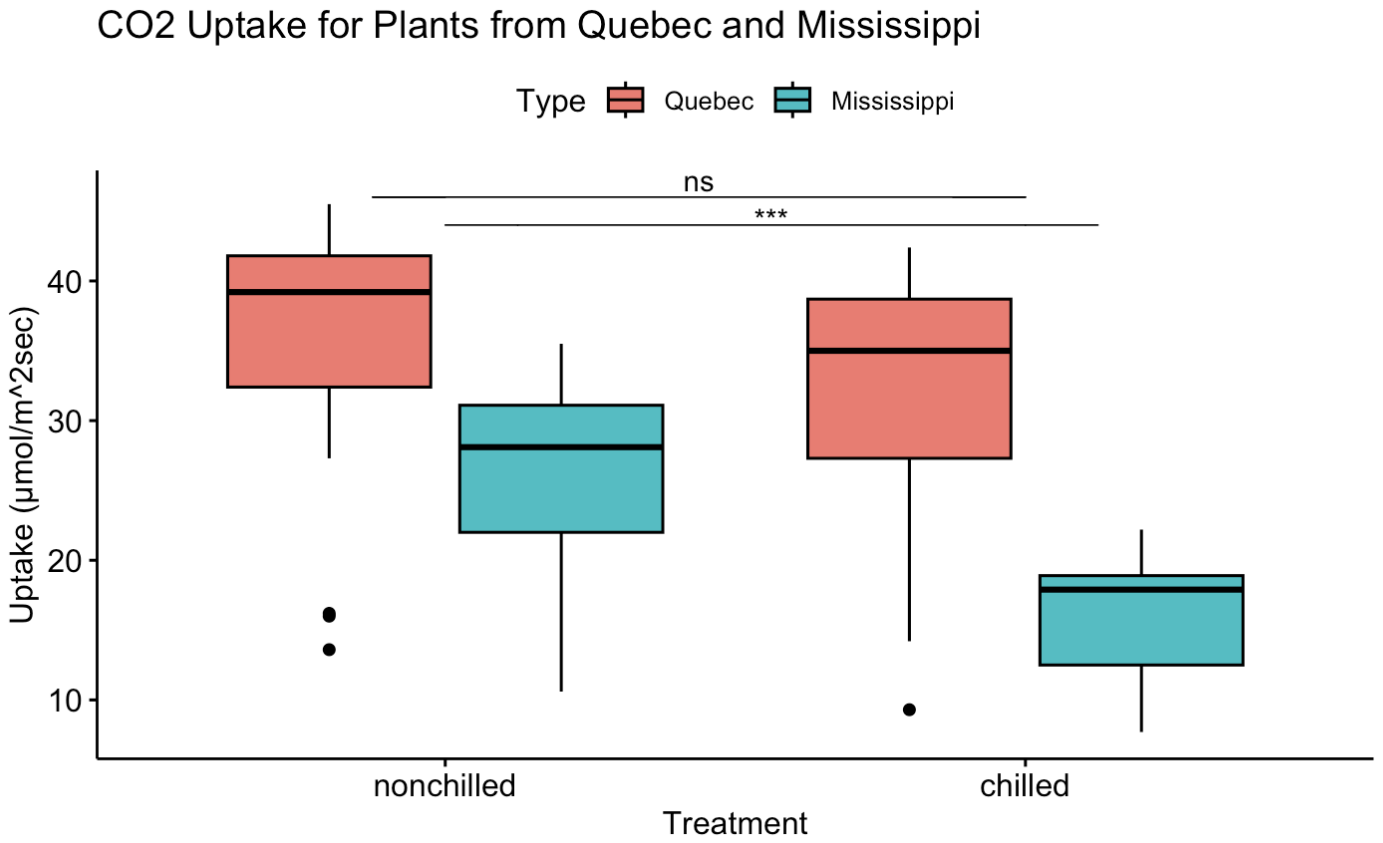


Figure 1. This figure shows the carbon dioxide uptake of **the grass *Echinochloa crus-galli*** in a cold tolerance experiment. **Seeds were sampled from Quebec (n = 6) and Mississippi (n = 6)** and grown under the same conditions in growth chambers. Four-week-old plants were divided evenly between a control group (26 ◦C) and a group that was chilled overnight (7 ◦C for 14 hours). CO2 uptake was measured for each plant at 7 concentrations of surrounding CO2 (95, 175, 250, 350, 500, 675, and 1000 ml/L). Plants from Quebec seeds showed higher CO2 uptake than plants from Mississippi seeds ($p < 0.0001$). CO2 uptake did not differ significantly for chilled and nonchilled plants from Quebec seeds ($p > 0.08$), but nonchilled plants had significantly higher CO2 uptake than chilled plants in plants from Mississippi seeds ($p < 0.001$).

Answers what plant we are studying, how many were included in the experiment, and what Quebec and Mississippi mean in this context.

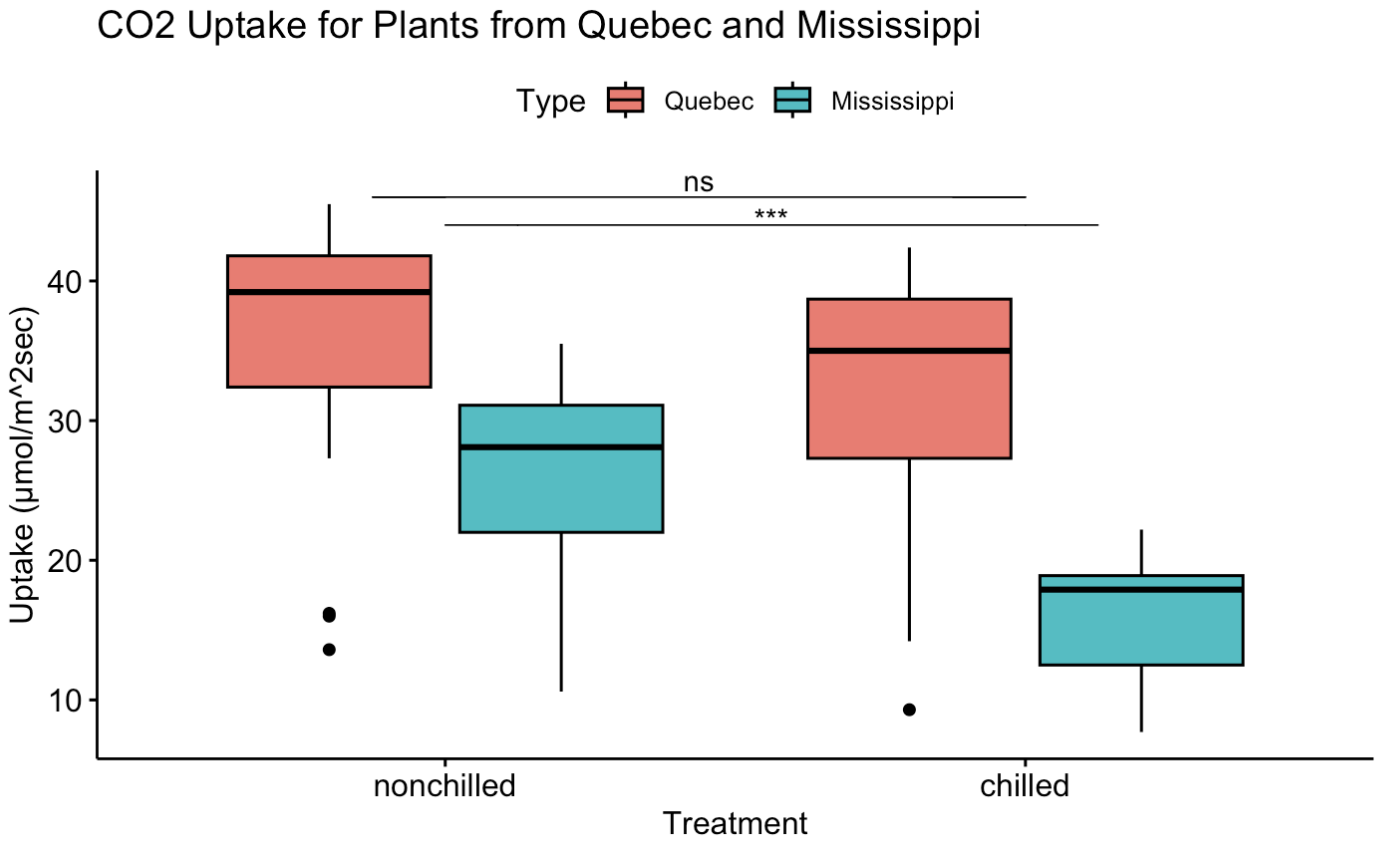
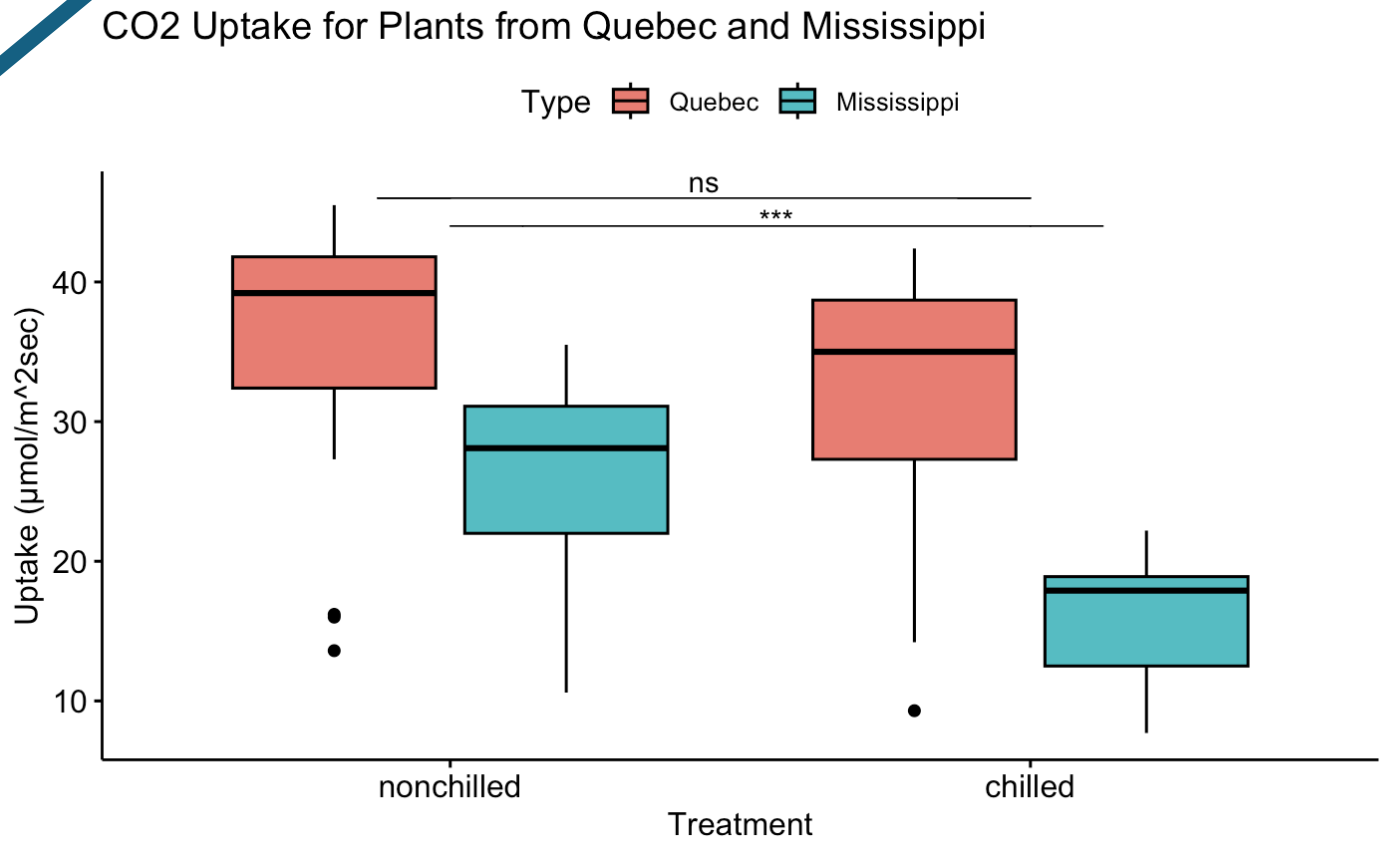


Figure 1. This figure shows the carbon dioxide uptake of the grass *Echinochloa crus-galli* in a cold tolerance experiment. Seeds were sampled from Quebec (n = 6) and Mississippi (n = 6) and grown under the same conditions in growth chambers. **Four-week-old plants were divided evenly between a control group (26 ◦C) and a group that was chilled overnight (7 ◦C for 14 hours).** CO2 uptake was measured for each plant at 7 concentrations of surrounding CO2 (95, 175, 250, 350, 500, 675, and 1000 ml/L). Plants from Quebec seeds showed higher CO2 uptake than plants from Mississippi seeds ($p < 0.0001$). CO2 uptake did not differ significantly for chilled and nonchilled plants from Quebec seeds ($p > 0.08$), but nonchilled plants had significantly higher CO2 uptake than chilled plants in plants from Mississippi seeds ($p < 0.001$).

Answers what our variables mean so that the reader can better interpret the data.



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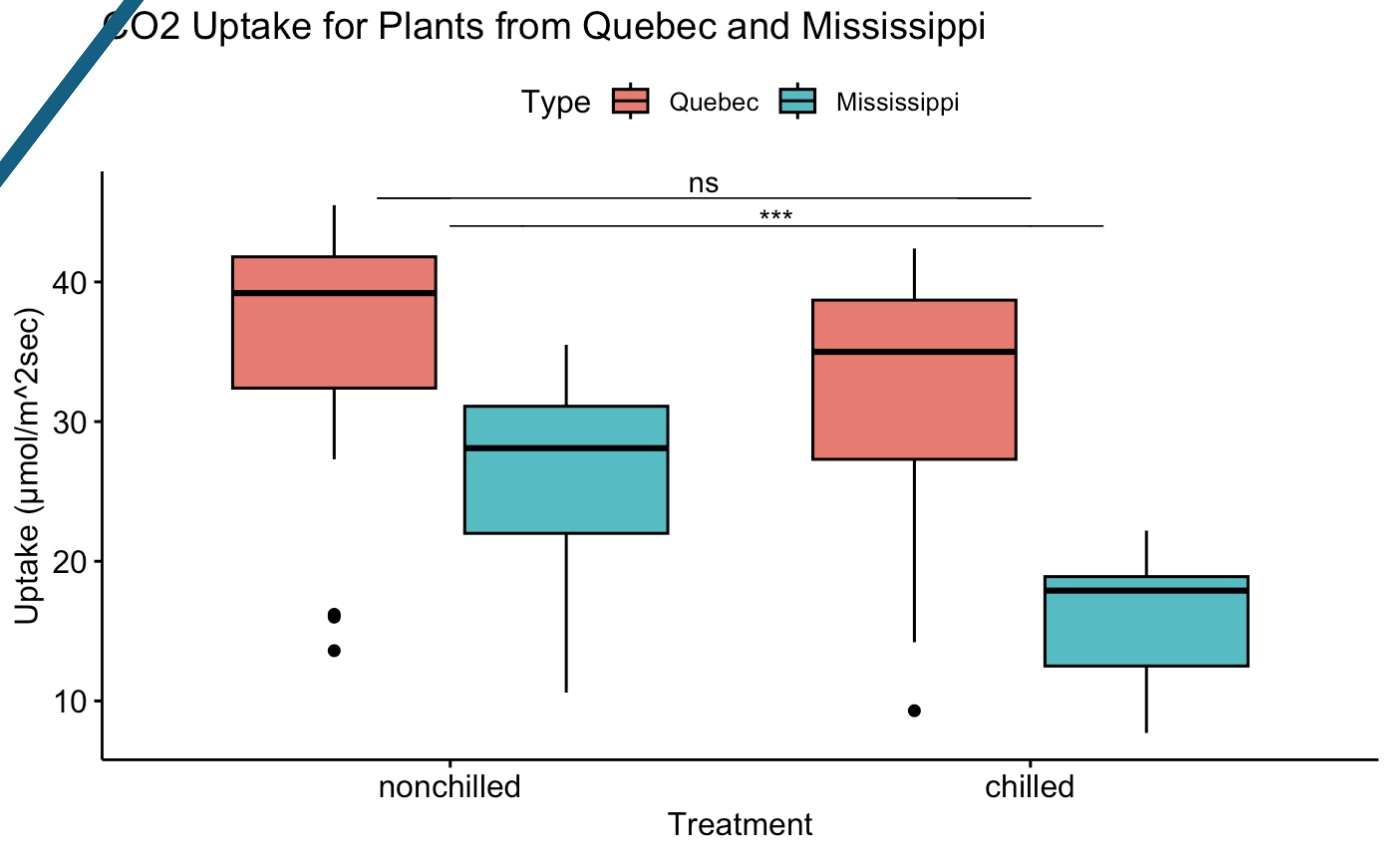
Answers how many data points we have for each plant and what the data points are.



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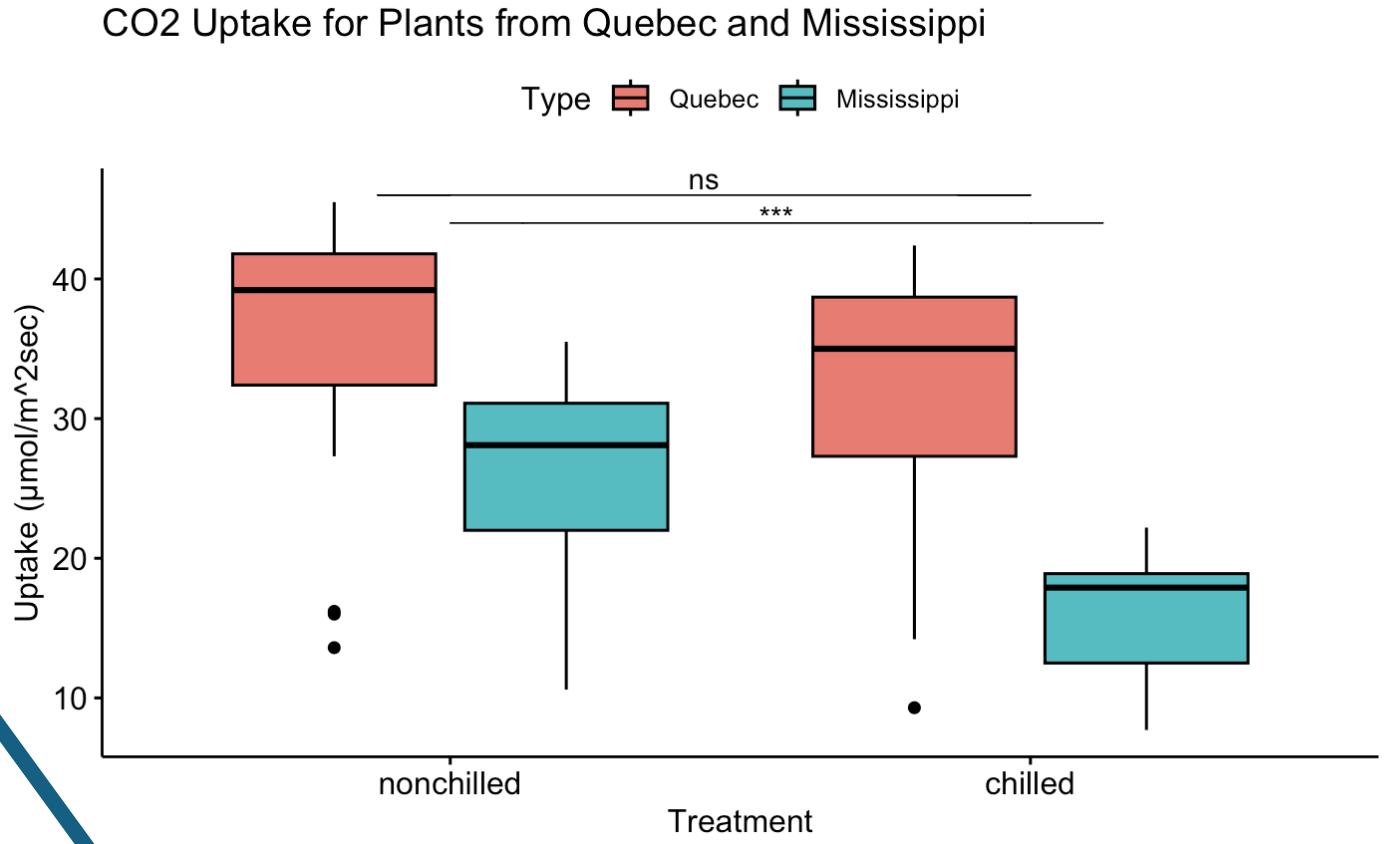

Tells one of the results that the figure is showing.

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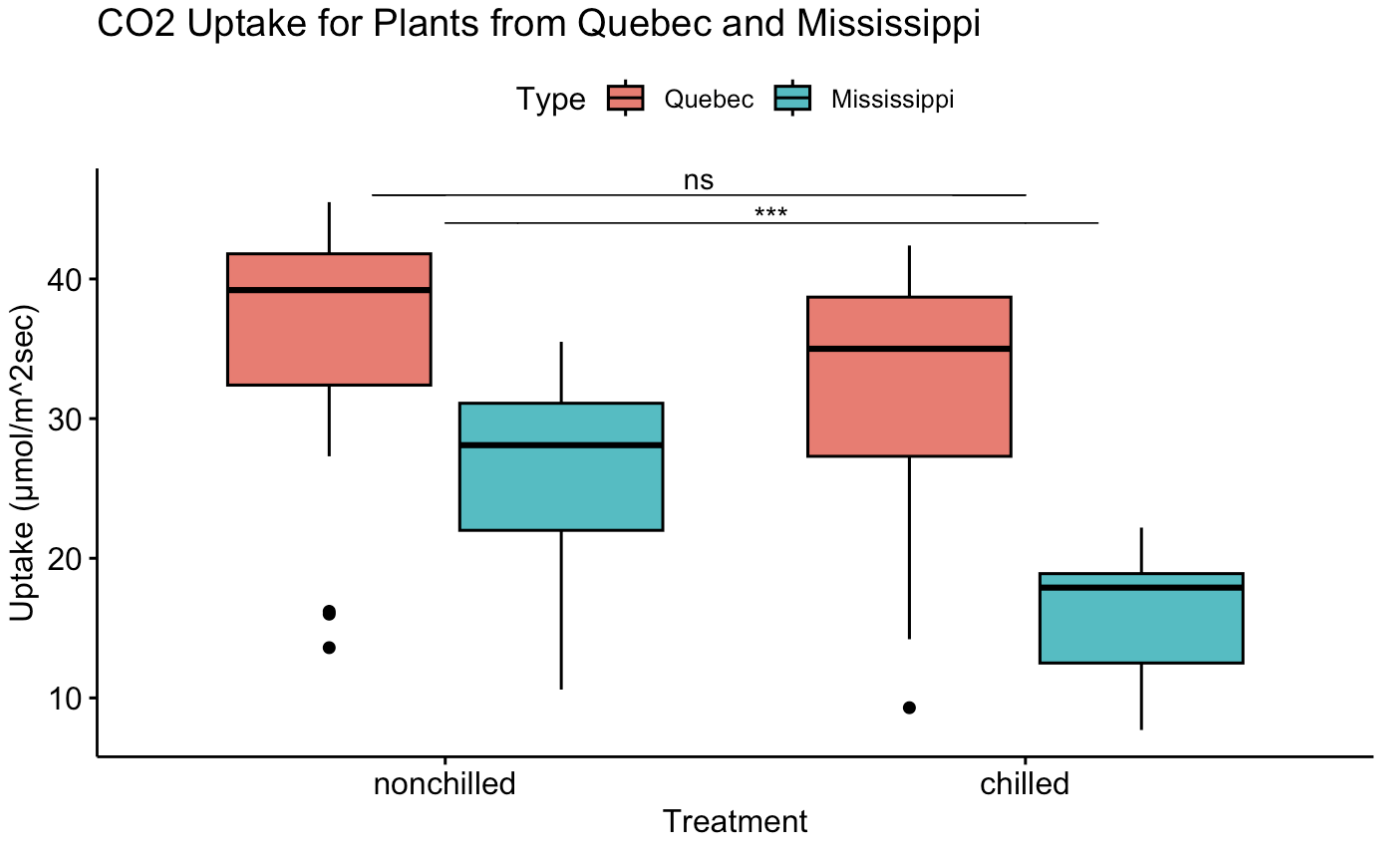

Explains the results that the figure is showing.

Were you able to make a figure?