Ginkgo

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11/23/2021

```
require(here)
```

```
Loading required package: here
```

```
## here() starts at C:/Users/earut/OneDrive/Documents/environmental_data
```

```
ginkgo_all   = read.csv(here("data", "ginkgo_data_2021.csv"))
```

Q1 (1 pt.): Create a conditional boxplot of one of the continuous variables (notch) conditioned on the seeds_present column.

```
dat_ginkgo   = read.csv(here("data", "ginkgo_data_2021.csv"))

boxplot(max_width ~ seeds_present, data = dat_ginkgo,
        ylab = "Width (mm)",
        xlab = "Seeds Present",
        main = "Ginkgo Leaf Width by \nSeeds Present")
```

Ginkgo Leaf Width by
Seeds Present
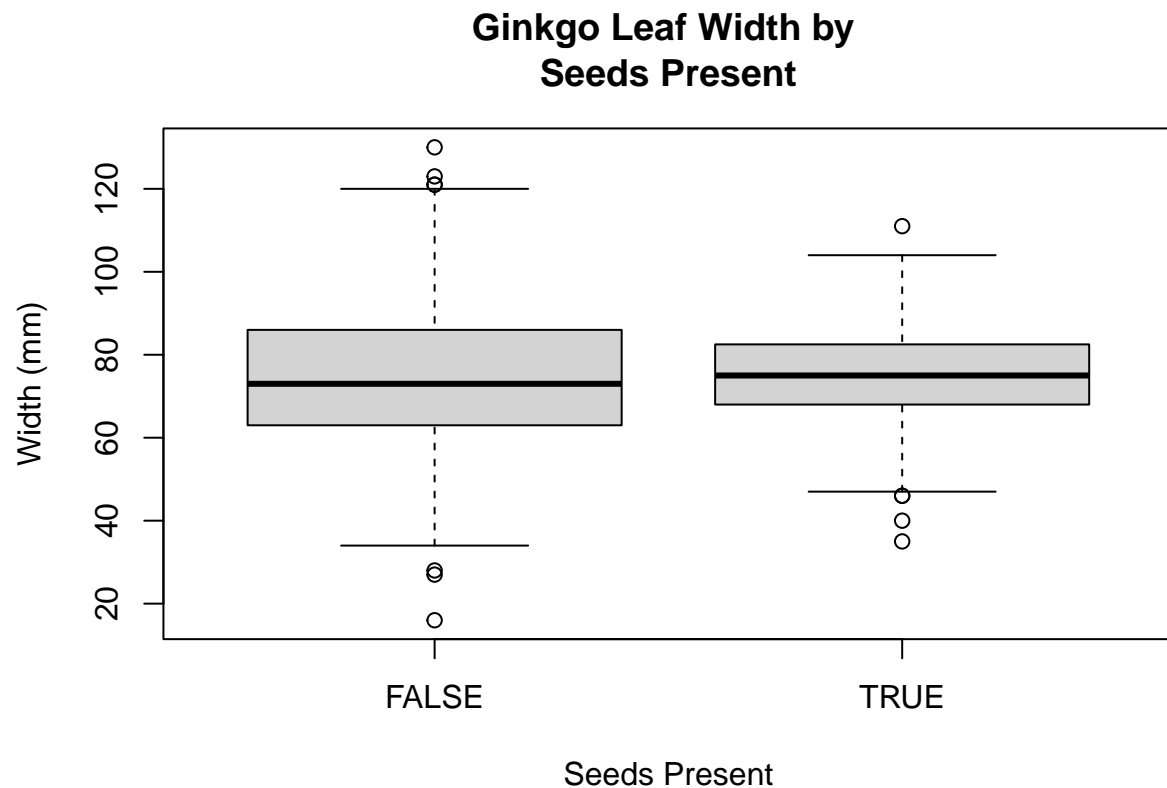
Q2 (1 pt.): Based on your boxplot, do you think there is any difference betwen seed bearing and non seed bearing trees? Note: this is just a prelimnary data exploration, you may change your mind based on further analysis!

There doesnt appear to be much of a difference. However non seed bearing leaves cover a wider range of widths.

Q3 (1 pt.): Create a scatterplot of max leaf depth (x) and max leaf width (y).

```
plot(max_depth ~ max_width, data = dat_ginkgo,
    ylab = "Width (mm)",
    xlab = "Depth (mm)",
    main = "Ginkgo Leaf Scatterplot")
```

Ginkgo Leaf Scatterplot
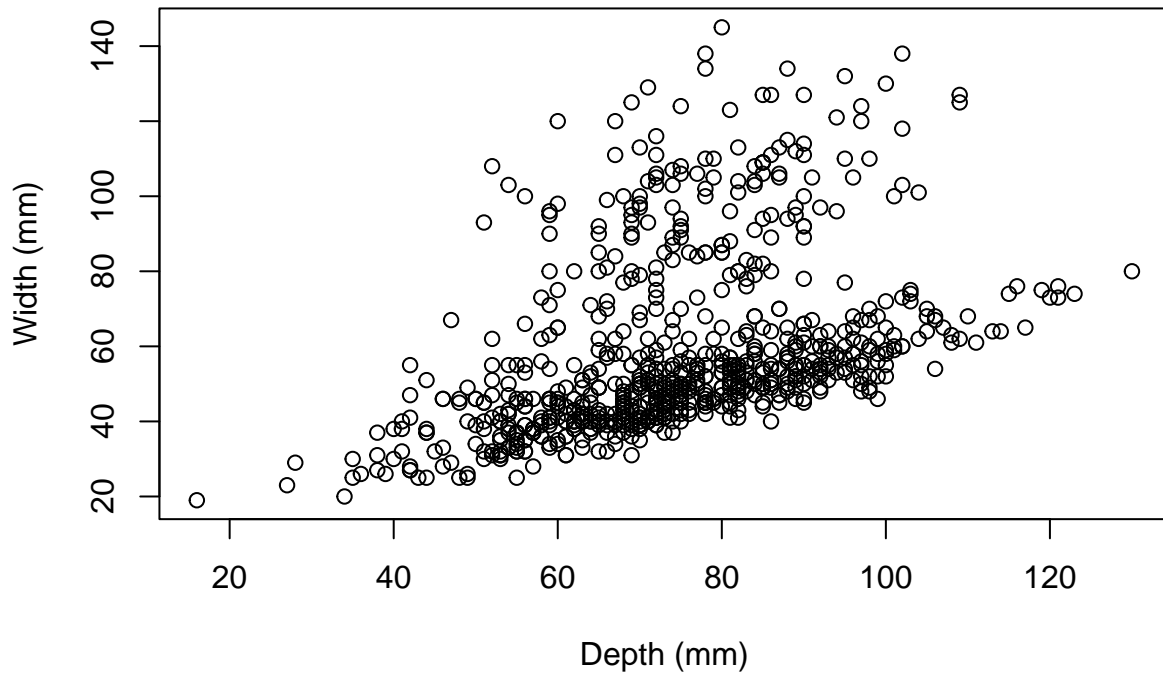
Q4 (1 pt.): Qualitatively describe the patterns you see in the scatterplot.

There appears to be a positive relationship betweeen leaf width and leaf depth.

Q5 (1 pt.): Explain how our data collection procedure might have violated the fixed x assumption.

Groups may have thought they were picking leaves from one tree, but may have picked leaves from two trees that were close together.

Q6 (1 pt.): Name 1 or more concepts you'd like me to review or discuss in more detail during our last two class meetings.

Functions and Formulas in lab. Go more in depth into modeling more than one predictor at a time.