

## Data Analysis Activity

Dr. Nash & Dr. Mueller gathered their data into the Eelgrass Data Google Sheets. They made one sheet on the seagrass shoot density, which shows how many seagrass shoots can be found in a square meter of mudflat. The second sheet shows how many leaves they found in each site that had lesions where *Labyrinthula zosterae* had damaged it.

Open the Google Sheets file “Eelgrass Data, Level 2”. You will use this file to make two graphs.

Start with the Sheet labeled “Shoot Density”. Calculate the average and standard deviation of the shoot density found at each site. Then, make a column graph showing the Average Seagrass Shoot Density at each site and paste it below. Use these videos to help you make the graph:

How to calculate average & standard deviation: <https://youtu.be/wG9GjKblCg8>

How to make a column graph in Google Sheets: <https://youtu.be/8Zljjx-N4ULU>

### Insert Graph #1: Seagrass Shoot Density Here

Now, click on the tab at the bottom left that says “Wasting Disease”. Make a column graph comparing the total number of leaves with wasting disease at each site.

### Insert Graph #2: Wasting Disease Presence Here

Use your graphs to write a Claim, Evidence, and Reasoning to explain which area (i.e. Idaho Flats Upper, Sally Bend Lower, etc.) has seagrass beds that are doing the worst.

**Question:** Which area has seagrass beds that are in the most danger of dying off?

**Claim** (In a complete sentence, answer the question.):

**Evidence** (Cite your data; mention the graphs directly):

**Reasoning** (Why does this evidence mean that your claim is correct? Explain.):