Data Visualization

Sheng Xu

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Why Data Visualization?

- Data visualization is **the graphical representation** of information and data.

- By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to **see and understand trends, outliers, and patterns** in data.
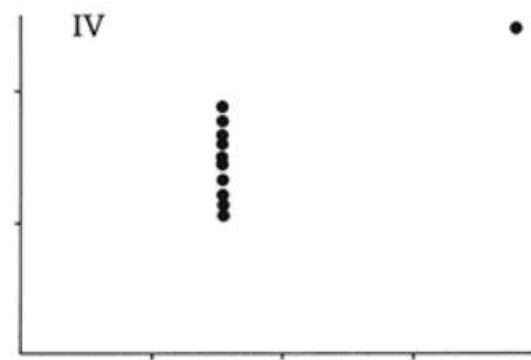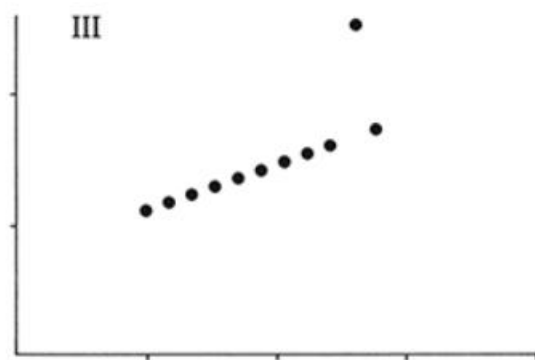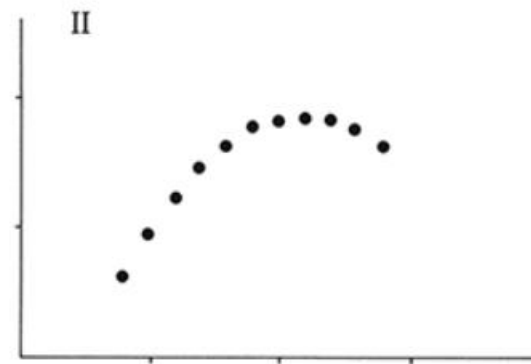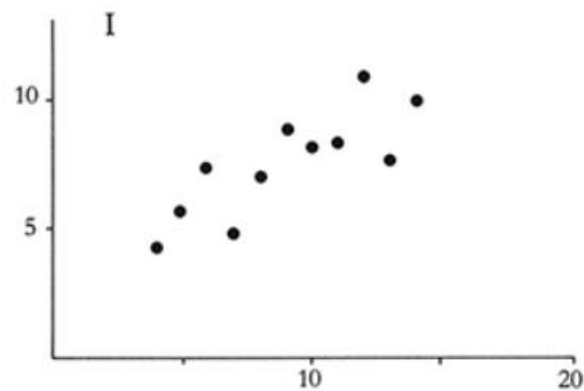
Table of data

| I		II		III		IV	
X	Y	X	Y	X	Y	X	Y
10.0	8.04	10.0	9.14	10.0	7.46	8.0	6.58
8.0	6.95	8.0	8.14	8.0	6.77	8.0	5.76
13.0	7.58	13.0	8.74	13.0	12.74	8.0	7.71
9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
12.0	10.84	12.0	9.13	12.0	8.15	8.0	5.56
7.0	4.82	7.0	7.26	7.0	6.42	8.0	7.91
5.0	5.68	5.0	4.74	5.0	5.73	8.0	6.89

Graphs of Data Tell a Different Story.
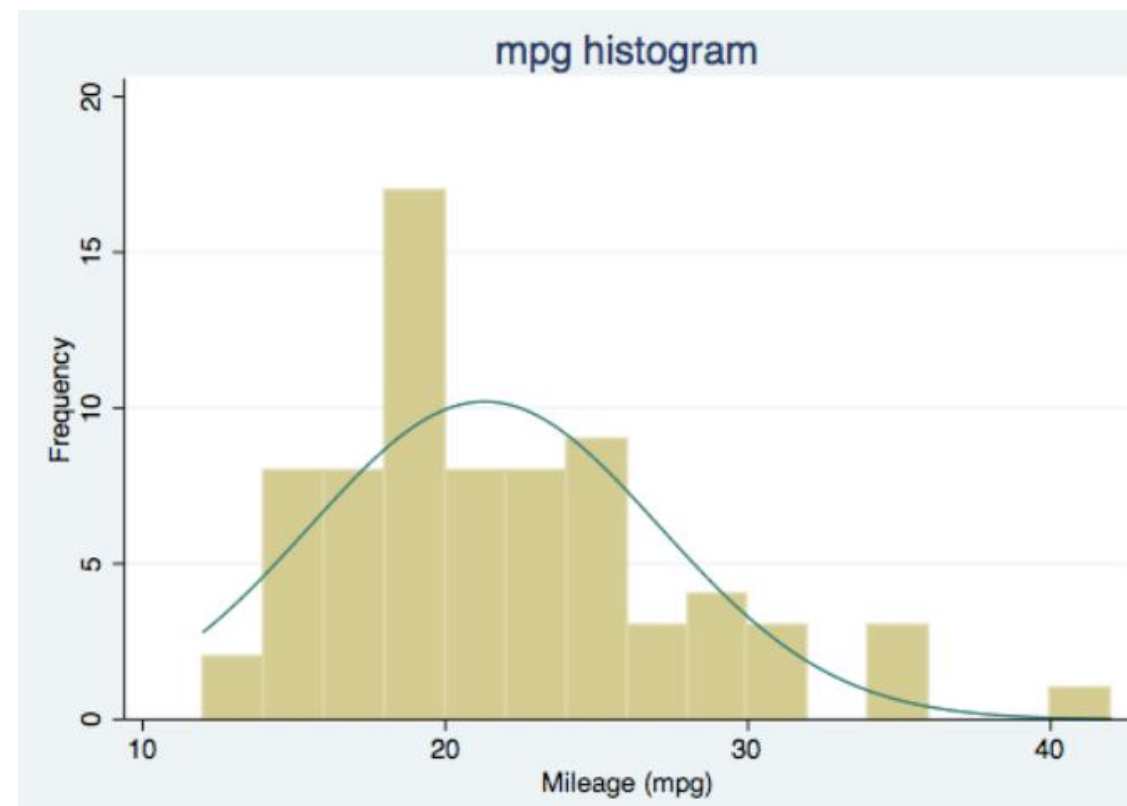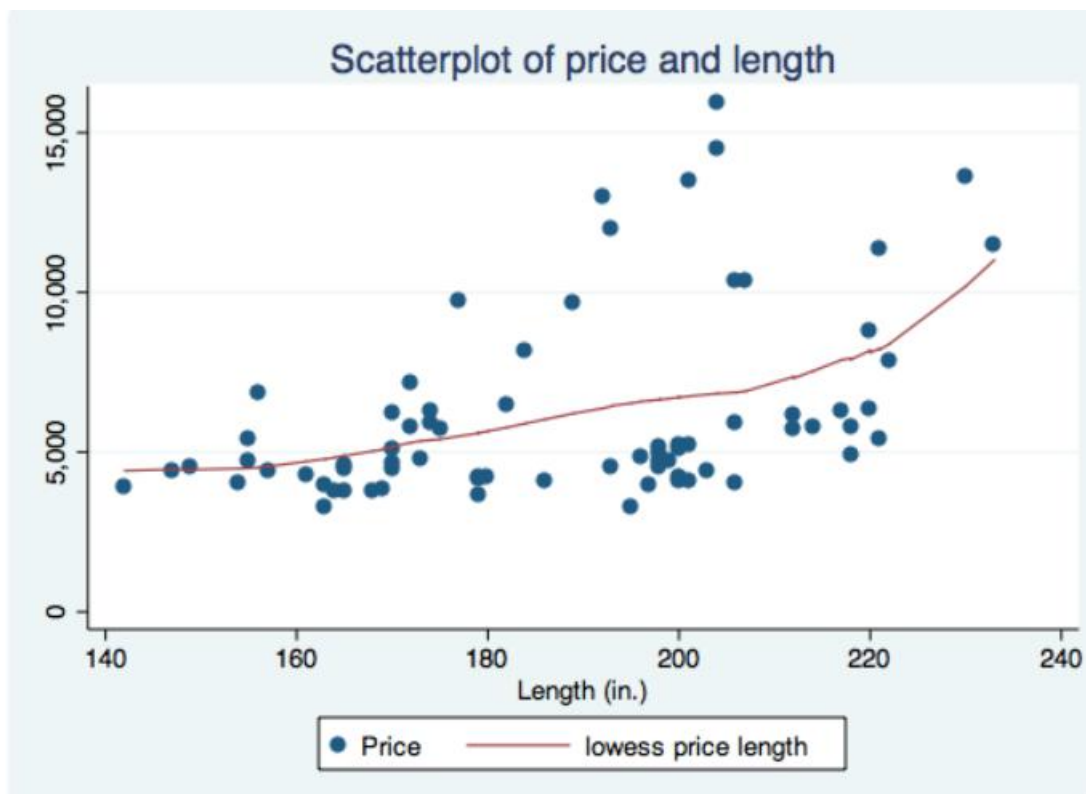
What to use:

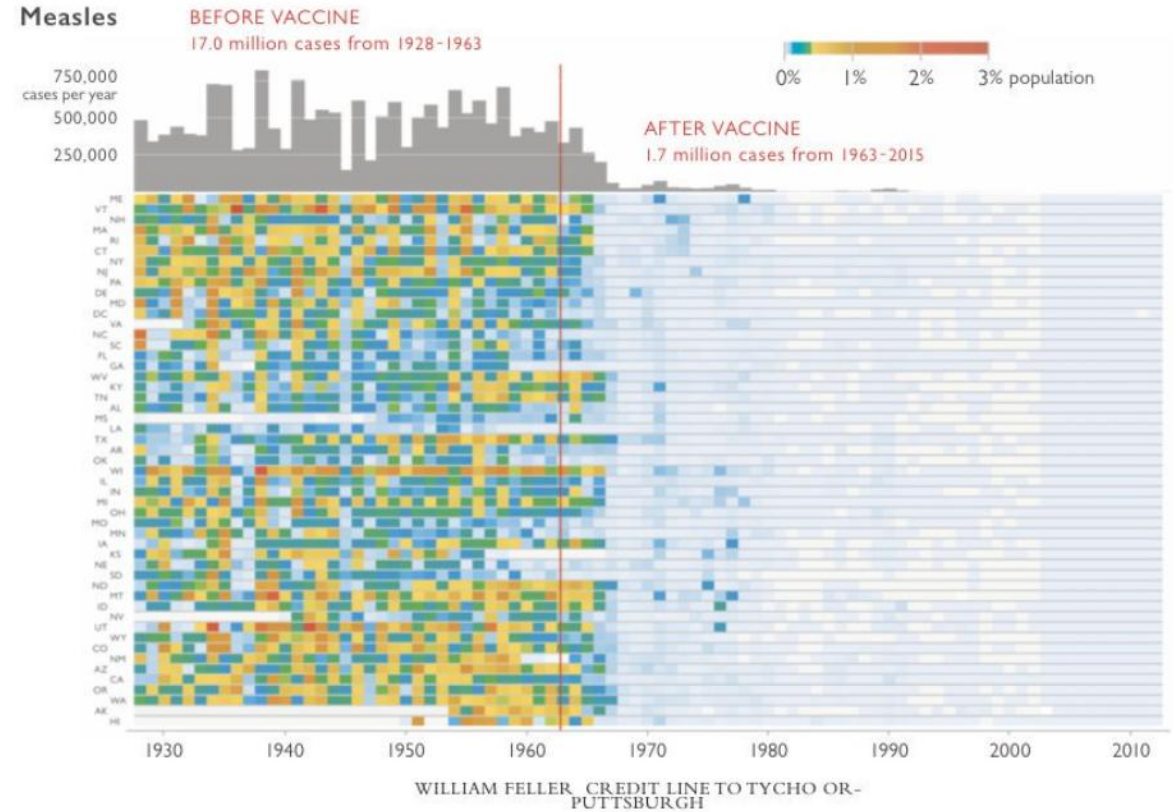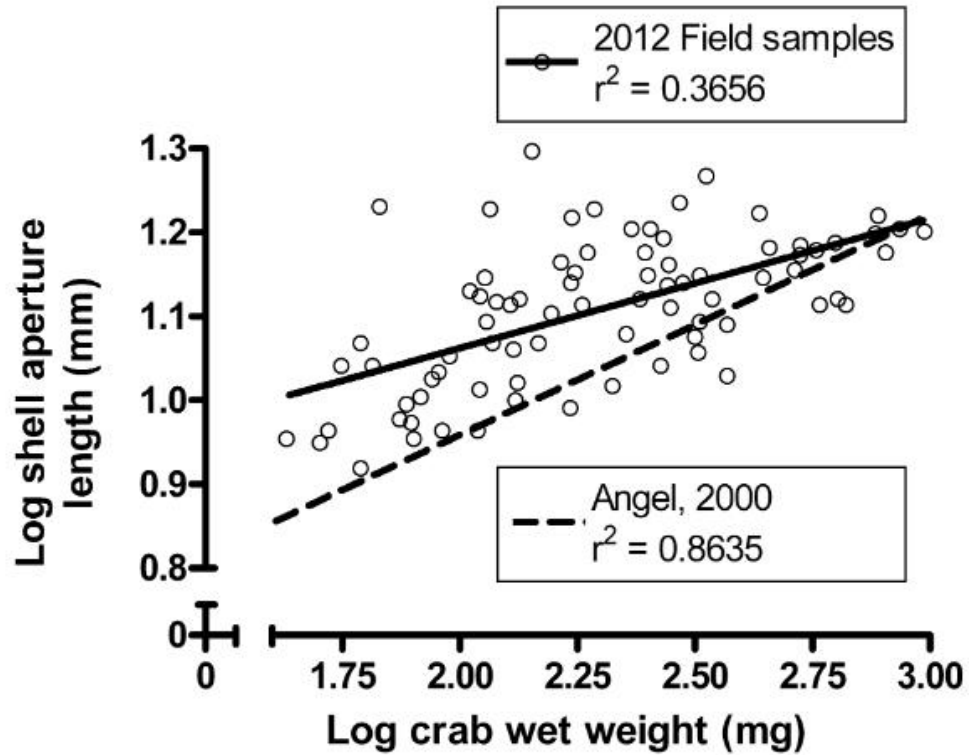- Length or area?

- Scatter or Histogram?

- Color, Lines, etc?
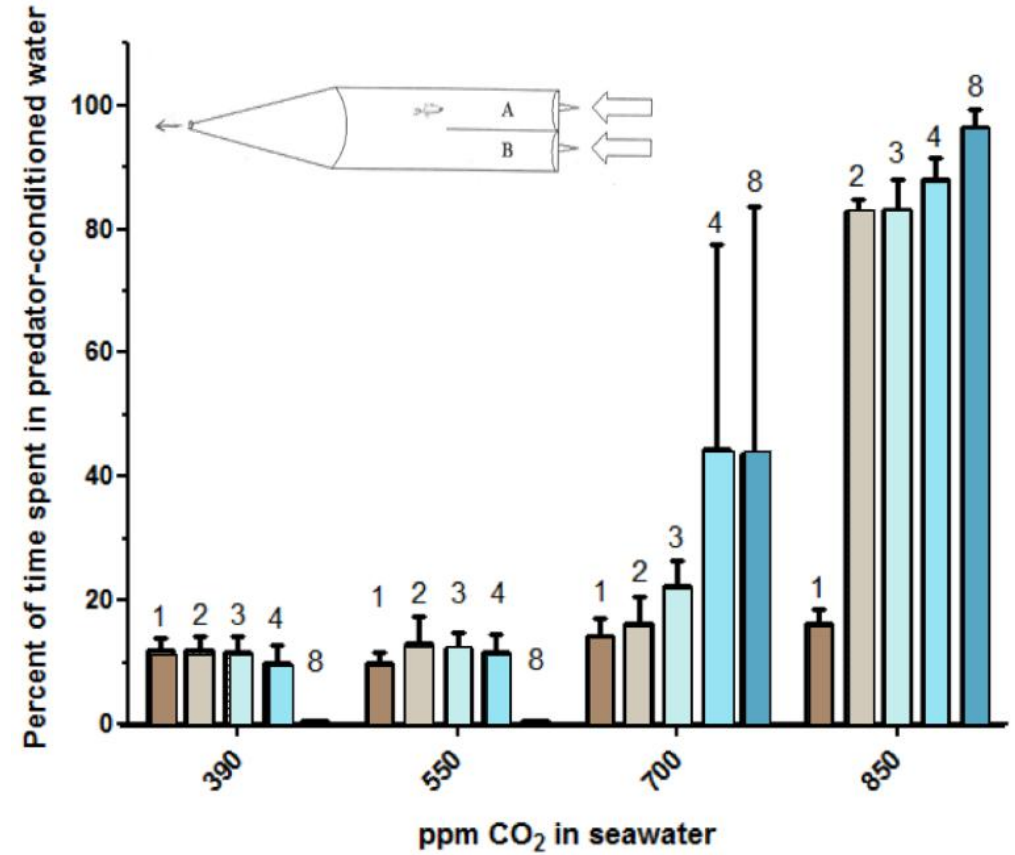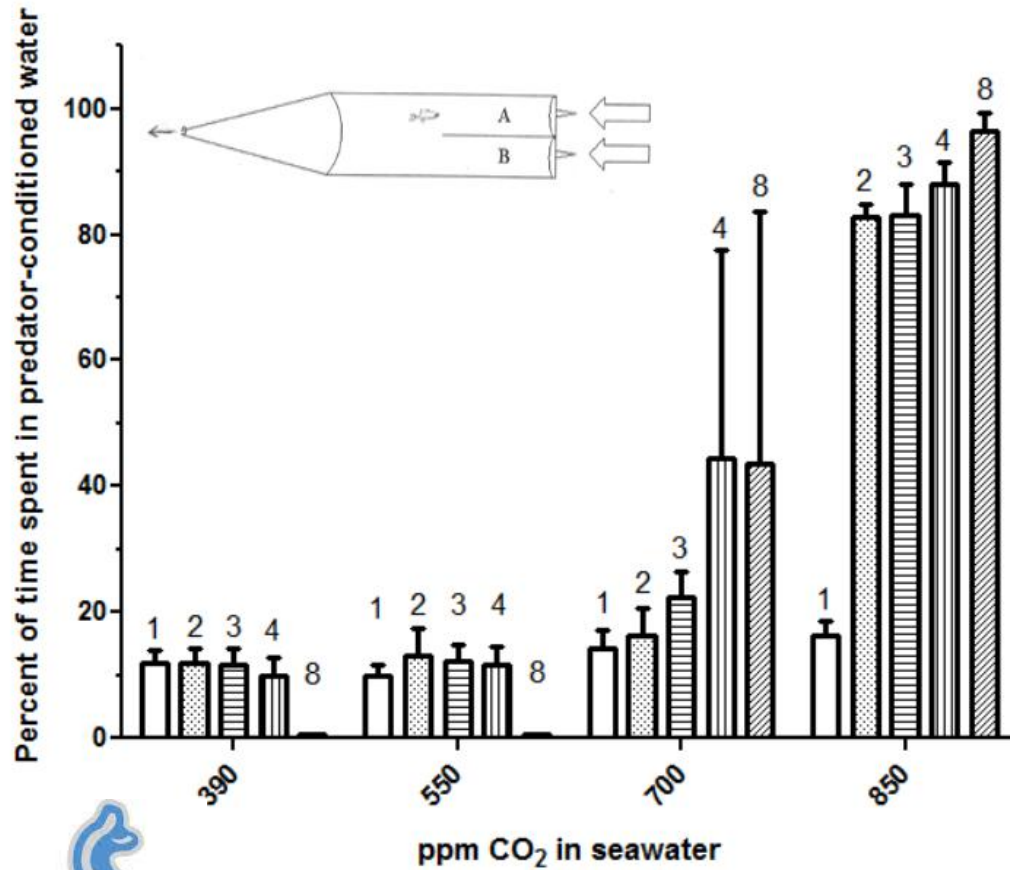
Length or area?
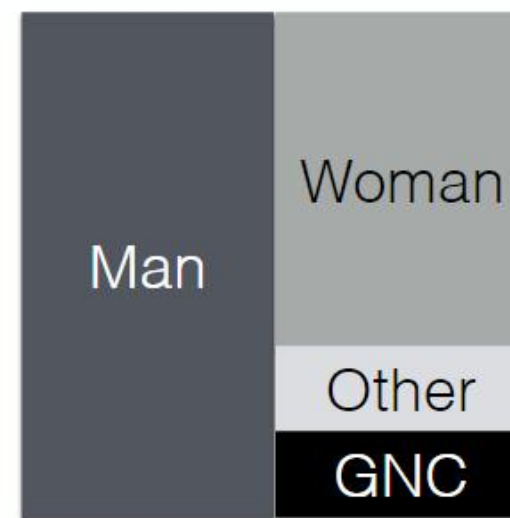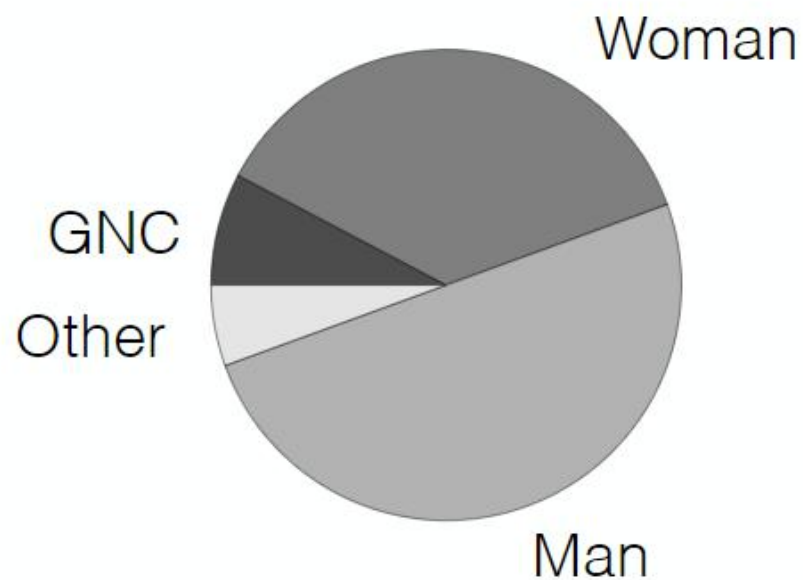
Scatter or Histogram?

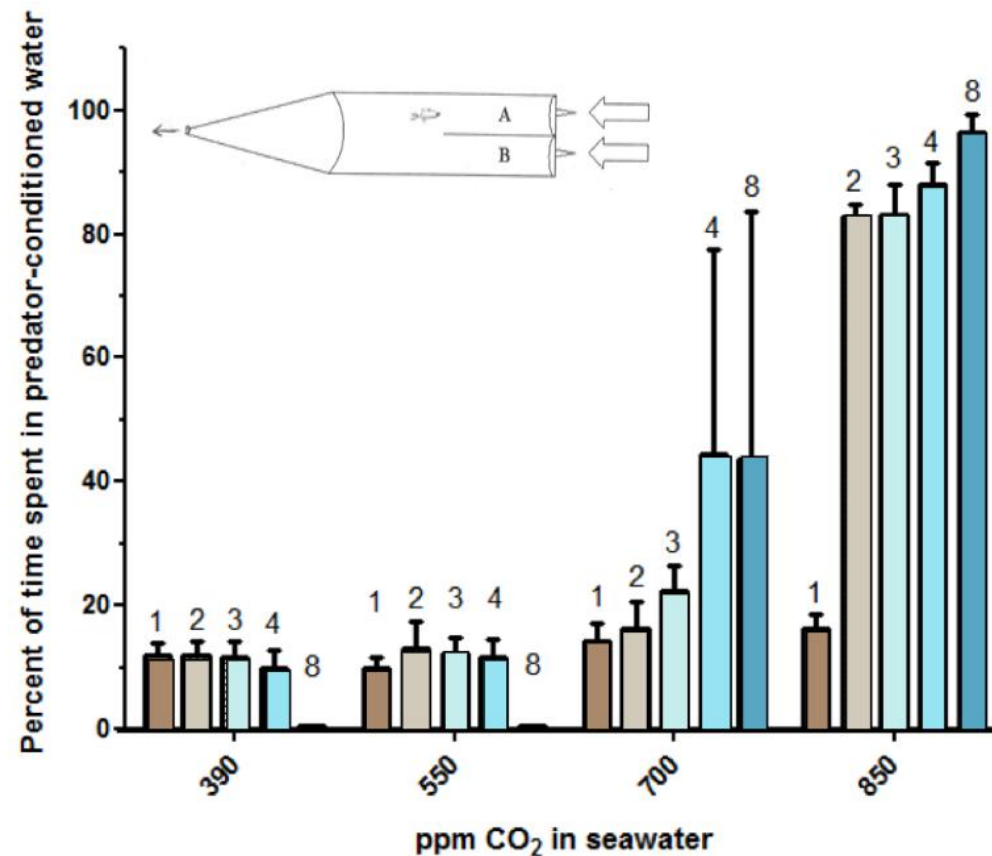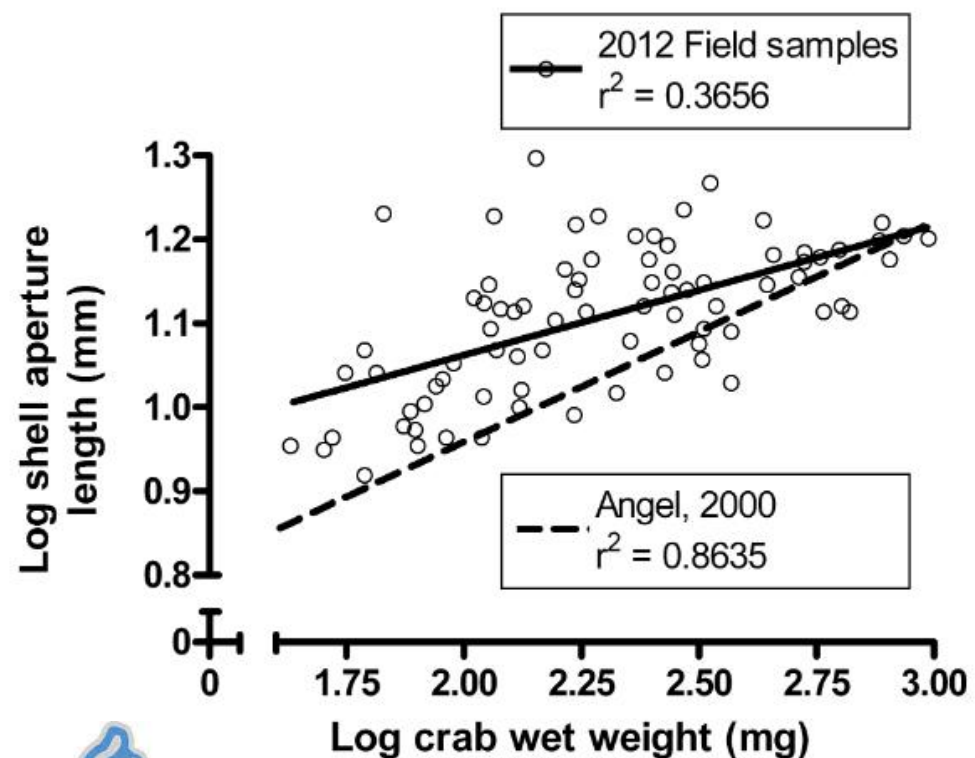# Scatter or Histogram?

Color: create contrast, or show continuity?

Color: Color or Texture

What to include? (or what's missing?)

Include titles or conclusions in your presentations!

Resources to Try:

- https://github.com/rdpeng/ExData_Plotting1

- Sample Solution: https://github.com/xush4/ExData_Plotting1

- https://www.coursera.org/learn/exploratory-data-analysis?specialization=jhu-data-science

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