

Exploratory Analyses I

Today's agenda:

Discuss exploratory analyses,

Discuss data of interest,

Load and examine some data

Exploratory Analyses and Graphics

Why do we do exploratory analyses and graphing?

Exploratory Analyses and Graphics

Why do we do exploratory analyses and graphing?

- Detect errors
 - E.g. nonsensical values, perfect correlations, “weird” patterns
- Understand statistical distributions/ check for violation of assumptions
 - E.g., non-normal distributions where normal are assumed
- Find patterns and relationships
 - E.g., mapping variables, pairwise correlation plots, etc.
- Identify variables to drop
 - E.g., highly correlated variables (in some cases)

Exploratory Analyses and Graphics

Critical part of science!

What types of data are we interested in?

Let's go around and discuss types of data and questions of interest.

(Reminder: you'll be selecting one or more focal datasets to examine)

Remainder of class:

- Work on 2.6
- Links for 2.6.1 can be found in https://github.com/bmaitner/Statistical_ecology_course/blob/main/R_scripts/Chapter_2_examples.R

Next time:

Before class:

- review 2.4 - 2.5

During class:

- Discuss Assignment 1
- Discuss potential data sources to work with
- Continue working through 2.6 (if needed)
- Start to apply techniques from chapter 2 to dataset of interest