ENVS 410/510 Final Project: Topic Identification

Due date update: Please submit to Canvas before class on Wed 1/24

Final project objective

To help you look ahead, the objective of the final project will be to complete a fully reproducible workflow that uses data to address your chosen environmental question. The project must illustrate all of the following tasks:

- Some form of data access / reading into R
- Integration of multiple datasets to address the question
- Data tidying preparation using tidyr, including data joins
- Use of dplyr to manipulate and summarize the data in relevant ways
- Initial data visualization with ggplot2
- Final, publication-worthy visualization with ggplot2
- RMarkdown writeup, with final submission as both the .Rmd file and a nicely formatted PDF document that includes code and results
- Overall clean and clear presentation of the workflow, code, and explanation

Final project topic selection

We will be building toward the final project throughout the class. At this stage we need enough information from you to tailor the data sources we cover and the examples we use in class. A full project proposal, with questions and identified data sources, will be due in early February. For now, please submit a .Rmd file saved as "LASTNAME_ProjectTopic.Rmd". In addition to being uploaded as FinalProjectTopicID.pdf, this document is available on Canvas as an .Rmd file as an example of the format. Include the following:

If you do not have your own data:

1) General topic of interest (e.g., climate, species conservation, air quality, hydrology, human demography, etc)

2) Potential questions within that topic area (e.g., how do climate forecasts differ regionally? How does environmental change influence species composition?, etc)

3) Potential datasets within that topic area (e.g.,specify relevant government databases, academic data repositories, etc)

If you do have your own data:

1) The questions you would like to answer with your data

2) The structure of the dataset (give as much information about the data as the str() function would return)