

ECOLOGICAL DATA ANALYSIS IN R
DESCRIPTION - WEEK 11
Spring 2020-1

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Week 11: Simple Linear Regression

We will go over a simple or bivariate linear regression (SLR) analysis. Once your data is clean and tidy and have performed the step-by-step Data Exploration you can analyze your using the SLR model framework. We will cover steps in R to run this analysis as well as how to run visual diagnostics, SLR model visualization and R output interpretation. We will run SLR models both using continuous as well as categorical predictive (X) variables and compare and contrast the results obtained from running hypothesis-testing analysis such as t-tests and ANOVAs.

Class 11.1: Lecture Topics

- Reviewing basic SLR theory
- SLR exercise
- SLR output interpretation
- SLR model visual diagnostics
- SLR models of continuous and categorical variables

In-class Activities

- Execute a SLR analysis and visualization process using the code provided

Class 11.2: Workshop activities

Complete a simple linear regression exercise process. Use the code and data provided in folder week11 to guide your SLR analysis. Complete the missing code sections and answer the questions provided on the R markdown document on model output interpretation. Optionally you could also start including some basic SLR modeling on your dataset provided for your final assignment.