Capstone Data Analysis Project – Preliminary Data Analysis
Biostatistics

Name: Alexis Parent Score = 19 /25

Submitted on time? (●) Y ( ) N

GENERAL REQUIREMENTS (10 POINTS):

Element	Points	Score	Feedback
Effective git/GitHub	1	1	
Well-organized	1	1	
Strong commentary outside of code chunks	3	2.5	
Effective use of comments within code chunks	2	1.5	
Code provides correct values and reduces "human intervention"	2	2	
Link on Canvas	1	1	

STATISTICAL ANALYSES (15 POINTS):

☐ Took initiative to learn new methods as appropriate

☑ Generally followed the our workflow:

Plot -> Guess -> Create model -> Check assumptions -> Interpret -> Final plot

Statistical analysis 1:

Question: Does MAOM change as a function of years between soil rotation?

Workflow checklist

☑ 1. Plot data

☐ 2. Guess relationships

☑ 3. Create model: 1-way anova (which is a form of lm) - but backwards

☐ Correct model?

☑ 4. Check model assumptions, if needed

☑ 5. Interpret model

☑ Interpretation is correct

☑ 6. Replot

☑ 7. Clear results statement

☑ In prose

☑ Outside of code chunk

Statistical analysis 2:

Question: Does POM change as a function of soil rotation?

Workflow checklist

- [x] 1. Plot data
- [ ] 2. Guess relationships
- [x] 3. Create model: 1-way anova
  - [x] Correct model?
- [x] 4. Check model assumptions, if needed
- [x] 5. Interpret model
  - [x] Interpretation is correct
- [x] 6. Replot
- [x] 7. Clear results statement
  - [x] In prose
  - [x] Outside of code chunk

Statistical analysis 3:

Question: Is there an association b/w SOM and soil Nitrogen?

Workflow checklist

- [x] 1. Plot data
- [ ] 2. Guess relationships
- [x] 3. Create model: linear regression
  - [x] Correct model?
- [x] 4. Check model assumptions, if needed
- [x] 5. Interpret model
  - [x] Interpretation is correct
- [x] 6. Replot
- [x] 7. Clear results statement
  - [x] In prose
  - [x] Outside of code chunk

Additional feedback

You are well on your way, but need to improve your technical writing about these analyses and include biological information in your justification for alternative hypotheses and in your interpretation of results.

See more detailed notes in prelim-analysis-feedback.qmd