Capstone Data Analysis Project – Preliminary Data Analysis
Biostatistics

Name: August Kotula   Score = 22   /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	3	
Effective use of comments within code chunks	2	2	
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: How does moon illumination affect the number of amphibians observed?

Workflow checklist

☑ 1. Plot data   ☐ 2. Guess relationships

☑ 3. Create model: linear regression

    ☑ Correct model?

☑ 4. Check model assumptions, if needed   ☑ 6. Replot

☑ 5. Interpret model   ☐ 7. Clear results statement

    ☑ Interpretation is correct   ☐ In prose

        ☐ Outside of code chunk

Statistical analysis 2:

Question: Does mean num amphibs differ with moon phase?

Workflow checklist

☑ 1. Plot data   ☑ 2. Guess relationships

☑ 3. Create model: 1-way anova (will ultimately need glm)

☐ Correct model?

☑ 4. Check model assumptions, if needed   ☑ 6. Replot

☑ 5. Interpret model   ☑ 7. Clear results statement

☑ Interpretation is correct   ☑ In prose

☑ Outside of code chunk

Statistical analysis 3:

Question: Does mean species richness differ between land use classes?

Workflow checklist

☑ 1. Plot data   ☑ 2. Guess relationships

☑ 3. Create model: 1-way anova, tukey teset

☑ Correct model?

☑ 4. Check model assumptions, if needed   ☑ 6. Replot

☑ 5. Interpret model   ☑ 7. Clear results statement

☑ Interpretation is correct   ☑ In prose

☑ Outside of code chunk

Additional feedback

August - this is looking good! My main suggestion is that you start reading Chapter 7 in your book as you will need to apply some of that content to your analytical approach.

See prelim-analysis-feedback.qmd for specific comments.