Biostatistics: Problem Set 3 – Introductory Statistics

Name: Karsten Braun Score = 22.5 /25

GitHub repo: https://github.com/Ktbrau/Braun-PS3-Applying-Stats.git

Submitted on time? (●) Y ( ) N

Project element	Value	Pts earned	Comments
Successfully fork a GitHub repository and create a new RStudio project from fork • Project called "Lastname-PS3"	1	1	good
Set up project and workspace, pull in and examine data, fix mistakes • Lastname-PS3.qmd • Use at least 2 functions • Assign data types • Error checking	2	1	You didn't do any error checking on numeric variables.
Analyze Q1: Does body mass differ b/w these 5 species of bats, and if so, how does body mass differ b/w species? • Nature of P and R vars • Analysis method explained • More polished figure • Clear, written interpretation	4	3.5	Good estimating means and plotting histogram. I'd like to see you explain why you selected 1-way ANOVA. You have it after line 94, but it should show up at outset. Also, at line 91, you are not running an anova on line 94, but already did with fitting your model. Clarify. Boxplot is not a good final plot for ANOVA. You are comparing means, so mean values should stand out. See key and book for details.
Analyze Q2: Does body length differ b/w species and, if so, how ? • Nature of P and R vars • Analysis method explained • More polished figure • Clear, written interpretation	4	3.75	Line 183 - clarify that when you say "We run an ANOVA test" you don't mean the anova(length_model) on line 180, which does not run a test. Otherwise, same feedback as for Analysis 1. Overall, Q1 and Q2 are good, just missing a few things as per notes abov
Analyze Q3: Is the number of ticks found on the bats associated with their sex or age? • Nature of P and R vars • Analysis method explained • More polished figure • Clear, written interpretation	4	3.5	Why are you doing chi-square (is correct, but what is the nature of your response, predictor)? Line 233 tick count needs sum rather than length - your numbers are thus off.

Analyze Q4: Disregarding species, is there a relationship in bats b/w tail length and body length? • Nature of P and R vars • Analysis method explained • More polished figure • Clear, written interpretation	4	3.75	Again, describe nature of response, predictor to indicate why regression is appropriate test.
Thought processes are well documented outside of code blocks, code is well commented, all steps prior to data analysis	4	4	good
Successfully open a pull request to add your changes to the forked repository • Commit changes • Open PR • Link pasted in Canvas	1	1	good
Code represents material we have covered in GSWR Chs 3-5 and not elsewhere	1	1	good
Additional feedback			