Biostatistics: Problem Set 3 – Introductory Statistics

Name: Alexis Parent Score = 21.5 /25

GitHub repo: https://github.com/AlexisParent7/Parent-PS3.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. Thanks for naming project correcty!
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	1.5	Good job checking factors. Should also make histograms of numeric vars to look for outliers.
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	Line 60 add ncol = 1 will make it easier to compare histograms. Line 63 - try to guesstimate the means. Need a little more detail on interpretation of autoplot() Line 83 should report two separate df See fig 5.11 in book for example of fina plot - need to display means, since that is what we're comparing
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	3.5	All the same feedback as for Q1
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	2.5	Incorrect test. Need chi-square test of association (= test of independence). Association in discrete response b/w 2 categorical vars. If it were a t-test, boxplot is not a good final figure, as again, you are comparing means.

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	3.5	Line 244 - you should try to guesstimate the slope and y-intercept from the plot. Line 254 - what might it mean that some of your autoplot stuff looks weird? Line 261 - also need to interpret adjusted R2 Final plot should have geom_smooth
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			