Lina Clifford

ECO 602 – Analysis of Environmental Data

Week 6 Reading Questions

Due October 16, 2022

**Q1 (3 pts.): In a short paragraph, describe a baseline scenario regarding seed predation. At the end, state the null hypothesis for seed predation.**

There are several seed predators in ecosystem X. Two seed species are receiving the most predation, *Polyscias fulva* (pol) and *Pseudospondias macrocarpa* (psd). We are interested to know whether those two seed species are being preyed on at the same rate or at different rates. Our null hypothesis is that *Polyscias fulva* and *Pseudospondias macrocarpa* have the same rate of seed predation.

**Q2 (3 pts.): Paste the R code you used to complete the table and calculate the rates.**

## Reading Questions Week 6 Script

## Analysis of Environmental Data

## Lina Clifford

rm(list = ls())

pol\_n\_predation = 26

pol\_n\_no\_predation = 184

pol\_n\_total = 210

pol\_predation\_rate = pol\_n\_predation/pol\_n\_total

psd\_n\_predation = 25

psd\_n\_no\_predation = 706

psd\_n\_total = 731

psd\_predation\_rate = psd\_n\_predation/psd\_n\_total

print(

paste0(

"The seed predation rate for Polyscias fulva is: ",

round(pol\_predation\_rate, digits = 3)))

print(

paste0(

"The seed predation rate for Pseudospondias microcarpa is: ",

round(psd\_predation\_rate, digits = 3)))

**Q3 (3 pts.): Show your table with the missing values filled in.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Species** | **Any taken** | **None taken** | **N** | **Predation rate** |
| *Polyscias fulva (pol)* | 26 | 184 | 210 | 0.124 |
| *Pseudospondias macrocarpa (psd)* | 25 | 706 | 731 | 0.034 |

**Q4 (2 pts.): Report the seed ratio of seed predation proportions and show the R code you used to do the calculation.**

The ratio of seed predation proportions is 3.62019.

# Calculate the predation proportion ratio

pol\_predation\_rate/psd\_predation\_rate