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
```