

Matthew Jusino

## Week 6 Reading Questions

I did not work on these questions with anyone else

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

The baseline scenario described in the Bolker reading was the setting out of seeds of two species of seed in many spots and the measurement of when seeds were taken or not taken, potentially by seed predators. The goal was to ascertain if there was preferential taking of one species of seed over the other. The null hypothesis would be that there was no correlation between seed species and rate of predation.

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

```
pol_n_predation = 26
pol_n_no_predation = 184
pol_n_total = pol_n_predation+pol_n_no_predation
pol_n_predation_rate = pol_n_predation/pol_n_total
```

```
psd_n_predation = 25
psd_n_no_predation = 706
psd_n_total = psd_n_predation+psd_n_no_predation
psd_predation_rate = psd_n_predation/psd_n_total
```

```
print(
  paste0(
    "The seed predation rate for Polyscias fulva is:",
    round(pol_n_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 microcarpa (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.

```
predation_ratio = psd_predation_rate/pol_n_predation_rate  
print(predation_ratio, digits = 3)
```

Ratio: 0.276