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Analysis of Environmental Data
Week 6 Reading Questions
October 10, 2021
Worked with Julia Vineyard

1. In a short paragraph, describe a baseline scenario regarding seed predation. At the end, state the null hypothesis for seed predation.

The baseline scenario for a frequentist test will give you a hypothesis to compare your test results against. In this case, the baseline scenario would be that there is an equal probability of predation for both of the seed species. The null hypothesis would state that there is no difference in predation between the two species.

2. Paste the R code you used to complete the table and calculate the rates.

```
rm(list = ls())

pol_n_predation = 26
pol_n_no_predation = 184
pol_n_total = (pol_n_predation + pol_n_no_predation)
pol_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_predation_rate, digits = 3))

print(
  paste0(
    "The seed predation rate for Pseudospondias microcarpa
is: ",
    round(psd_predation_rate, digits = 3)))
```

3. Create a table and fill in the missing values:

Species	Polyscias fulva (pol)	Pseudospondias microcarpa (psd)
Any Taken	26	25
None Taken	184	706
N	210	731

Predation Rate	0.124	0.034
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4. Use the seed predation proportions you calculated to determine the ratio of seed predation proportions.

```
predation_proportion =
(pol_predation_rate/psd_predation_rate)

print(
  paste0(
    "The ratio of seed predation proportions: ",
    round(predation_proportion, digits = 3))
)
```

The ratio of seed predation proportions: **3.62**