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ECO 602

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Week 5 Reading Questions

Q1

A Frequentist paradigm for statistics either accepts or rejects a null hypothesis, which is an assumption that an outcome does not occur. In this context, the baseline scenario would be one where the two species experience no predation. The null hypothesis would be that the pol and psd species have equal predation probabilities.

Q2

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)))

Q3

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

Q4

The ratio of predation rates is 0.034/0.124 = 0.274