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ECo 602: Michael France Nelson

Week 6 Reading Questions

1. Two plant species exist in the same region, but one of the populations is rapidly declining. Researchers are trying to figure out why this could be, and one question asked is if there is a difference in predation rates between the two species. The data for each species is separate based on if seeds are taken or if no seeds are taken and then totaled. Then, the total proportion of seeds taken is calculated based on the number of plants with seeds taken divided by the total number of observations. The null hypothesis is there is no difference in predation rates.
2. 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

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

1. Predation\_prop = pol\_predation\_rate/psd\_predation\_rate

Pred\_prop = 3.62