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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
3.

Species	Any taken	None taken	N	Predation rate
Polyscias fulva (pol)	26	184	210	0.124
Pseudospondias macrocarpa (psd)	25	706	731	0.034

4. Predation_prop = pol_predation_rate/psd_predation_rate
   Pred_prop = 3.62