

Name: Ragib Ahsan
Eco602:Week6 Reading Assignment- Frameworks

Q1 Answer:

The seed predation of two mentioned species- *Polyscias fulva* (pol) and *Pseudospondias Microcarpa* (psd) is the baseline scenario where it showed the number of seeds (total)- N and the total number of times that the seeds were taken by the predators (t).

The null hypothesis is defined as, when there would not any significant differences between two different mentioned populations. Here, there is no significant differences in the predation rates of two individual species (pol & psd- 26 & 25), which can be stated as the null hypothesis for seed predation.

Q2 Answer:

```
rm(list = ls())
```

```
pol_n_predation = 26  
pol_n_no_predation = 184  
pol_n_total = 210  
pol_predation_rate = pol_n_predation/pol_n_total
```

```
psd_n_predation = 25  
psd_n_no_predation = 706  
psd_n_total = 731  
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 Answer:

| species | <i>Polyscias fulva</i> (pol) | <i>Pseudospondias microcarpa</i> (psd) |
|----------------|------------------------------|----------------------------------------|
| Any taken | 26 | 25 |
| None taken | 184 | 706 |
| N | 210 | 731 |
| Predation rate | 0.124 | 0.034 |

Q4 Answer:

The seed predation rate for *Polyscias fulva* (pol) is- 0.124

The seed predation rate for *Pseudospondias microcarpa* (psd) is- 0.034

So, the seed predation proportion ratio= predation rate of pol/predation rate of psd
(0.124/0.034) = 3.647