General

1. Max likelihood or AIC or p-values to choose between models?
2. Main hypothesis: cover as refuge?

**Tree removal experiment**

1.Hypothesis

2. Bootstrap because of few values?

3. Pair cut and uncut trees?

4.

Response: log(meanCrossings)

Chisq Df Pr(>Chisq)

moonPhase 73.8433 3 6.412e-16 \*\*\*

habitat 16.9270 1 3.884e-05 \*\*\*

FeedingTrayPosition 7.2839 1 0.006958 \*\*

month 3.6433 1 0.056294 .

moonPhase:habitat 4.0876 3 0.252159

moonPhase:FeedingTrayPosition 3.0421 3 0.385180

habitat:FeedingTrayPosition 1.3191 1 0.250753

moonPhase:month 10.8770 3 0.012410 \*

habitat:month 0.4780 1 0.489347

FeedingTrayPosition:month 2.0467 1 0.152538

moonPhase:habitat:FeedingTrayPosition 1.9250 3 0.588125

moonPhase:habitat:month 0.4492 3 0.929902

moonPhase:FeedingTrayPosition:month 4.7502 3 0.191031

habitat:FeedingTrayPosition:month 0.2290 1 0.632288

moonPhase:habitat:FeedingTrayPosition:month 1.7884 3 0.617459

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Response: meanCrossings

Chisq Df Pr(>Chisq)

moonPhase 62.7262 3 1.537e-13 \*\*\*

habitat 16.7307 1 4.308e-05 \*\*\*

FeedingTrayPosition 10.7486 1 0.001044 \*\*

moonPhase:habitat 1.8953 3 0.594418

moonPhase:FeedingTrayPosition 2.5264 3 0.470537

habitat:FeedingTrayPosition 6.3055 1 0.012037 \*

moonPhase:habitat:FeedingTrayPosition 1.9752 3 0.577562

GUD Model

Response: log10(meanGUD + 1)

Chisq Df Pr(>Chisq)

moonPhase 7.2830 3 0.06340 .

habitat 2.1528 1 0.14231

FeedingTrayPosition 1.3776 1 0.24051

month 16.3172 1 5.358e-05 \*\*\*

moonPhase:habitat 3.3840 3 0.33612

moonPhase:FeedingTrayPosition 0.0540 3 0.99671

habitat:FeedingTrayPosition 0.0357 1 0.85020

moonPhase:month 0.0814 3 0.99397

habitat:month 7.5592 1 0.00597 \*\*

FeedingTrayPosition:month 0.8880 1 0.34601

moonPhase:habitat:FeedingTrayPosition 0.2934 3 0.96126

moonPhase:habitat:month 4.0515 3 0.25596

moonPhase:FeedingTrayPosition:month 2.1809 3 0.53572

habitat:FeedingTrayPosition:month 1.9846 1 0.15890

moonPhase:habitat:FeedingTrayPosition:month 3.4056 3 0.33322

month

Response: meanGUD

Chisq Df Pr(>Chisq)

moonPhase 2.7835 3 0.4262

habitat 1.1708 1 0.2792

FeedingTrayPosition 0.3163 1 0.5738

moonPhase:habitat 3.7826 3 0.2859

moonPhase:FeedingTrayPosition 1.2817 3 0.7335

habitat:FeedingTrayPosition 0.6073 1 0.4358

moonPhase:habitat:FeedingTrayPosition 2.7076 3 0.4389

Second exp-

Two nights after cut night, two nights before cut night

Take cut vs uncut as a factor.

To reduce location and environment effect, control trees were taken.

t-test for before and after for cut trees,

another for before and after for uncut trees. – better not to split data and perform test, mixed effects model since data is unbalanced

Repeated measures: treatment, microhabitat, treatment\*microhabitat. Time is a repeated measure.

0 for activity and 3 for GUD.

RM anova does not comparing the same pairs.

Rodents- opportunistic. Rn around and eat food if they find it. Month less of an effect

Is it possible to look at season? Instead of saying month. Some data to corroborate this. Feb- early march – spring. Winter- December jan. Late winter and spring.

Discard four way interaction.

A lot of seeds get accumulated under low structure plants. Bush close to ground- blocks the wind , accumulates seeds.

Embar paper also talks about visibility. Been shown with larger ungulates- ibexes.

Tukey for interactions too.

Looking for broder patterns across the world- look for what is similar. Pattern holds true in semi arid patterns in India.

Cover very context dependent- depends on predators. To what is extent is cover imp for diff prdators?

Justify seasonality- affects

thesis

2 sections

1st section- broad patterns of rodent and cover

Testing in india to look for broader patterns

Prosopis in Banni

Based in a semi-arid area- pattern across the world

Discussion-Bring vegetation data set up

Second part- invasive species.