Olivia Guswiler

Lab Assignment 3

2024-10-08

*Task I: Fit a model assuming constant occupancy and detection*

1. What is the proportion of sites where bobcat where detected?

Bobcats were detected in 39.2% of sites

1. What is the probability of use for the dot model?
2. What is the probability of detection for the dot model?

*Task II: Determine how forest and grassland land cover influence the probability that a bobcat used a site*

Verbally describe the relationship between the probability that a bobcat will use the area around one of our cameras and one or both of these covariates.

*Task III: Plot the predicted relationship between probability of use and grassland and forest land cover*

Verbally describe and compare the relationships between probability of use and these covariates (grass and forest cover). Include your graph in the report.

*Bonus*

Create the same predicted plot as above but do this for detection rate and plot the probability of detection as a function of day-of-year (DOY).