Example distance-sampling analysis in Rdistance

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# Abstract

# Relation of Rdistance to other distance-sampling options

# Overview of workflow

# Example data

Sparrows.Counts:

TranID: The name of each transect surveyed. This ID serves as the primary key for linking sparrow count data to site-level covariate data.

Number: The number of individual Brewer’s Sparrows detected at each detection event (also called group size).

SightDist: The distance from the observer to the detected sparrow(s) in meters. Measured using a laser rangefinder in the field.

SightAngle: The angle from the line to the detected sparrow(s) in degrees (0-90). Measured using a compass in the field.

PerpDist: The perpendicular distance from the sparrow(s) to the transect line. Calculated using the SightDist and SightAngle data, and the \_\_\_ function.

Sparrows.Covariates:

TranID: The name of each transect surveyed. This ID serves as the primary key for linking sparrow count data to site-level covariate data.

Grouse: Presence of Greater Sage-Grouse at the transect. Assessed by two observers searching for Greater Sage-Grouse fecal pellets within 2 m of the line over the entire length of the transect. Presences are coded as 1, and absences as 0.

Sage: Sagebrush cover at the transect. Assessed using remotely-sensed shrub cover data (Homer et al.). The mean shrub cover within 100 m of the line was classified as either High (>10%) or Low (≤10%)

# Import and format data

# Fit automated models

# Fit custom detection functions