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data Folder

We provide the camera and telemetry data for adult female white-tailed deer on the Bear Island Unit of Big Cypress National Preserve collected 2015-2017. This represents a subset (one study area) of the entire dataset used for analysis throughout the manuscript.

Author

Author: Lydia L. S. Margenau
Affiliation: University of Georgia
Email: lydia.stiffler@gmail.com

File list

`marked_data.RData`
`unmarked_data.RData`
`trap_locations.csv`

Description

`marked_data.RData` – Camera and telemetry data for ear-tagged and GPS-collared female white-tailed deer on the Bear Island Unit camera trapping array. Use this data in conjunction with the `marked_jags_AR1.R` file in marked folder.

Variable descriptions and structure:

- histories4D - 4-dimensional detection histories (present/absent) for each marked individual
  - array[Deer ID, trap, secondary occasion, primary period]
- x - Trap locations for the specific camera grid in UTM coordinate system (m)
  - array[UTME, UTMN]
- telemetry.deer - 4-dimensional telemetry locations for marked deer
  - array[Deer ID, telemetry occasion, coordinates, primary period]

- nTelemLocs - Number of telemetry locations for each marked individual during each primary period
    - matrix(Deer ID, primary period)
- t.length - Number of primary occasions in which telemetry data is available for each individual
    - vector
- start - The first primary period for the model based on starting primary period with marked deer
- end - The last primary period for the model based on the last primary period with marked deer
- t.in - Conversion of a ragged list to a matrix. Each row contains the sequential fortnight periods an individual deer was available on the camera grid for sampling. The first column indicates when individual entered the camera array.
    - matrix[Deer ID, telemetry locations]
- oper3D - Camera operational status matrix. 1 indicates cameras was operational, 0 indicates the camera wasn't available.
    - array[trap, secondary occasion, primary period]

`unmarked_data.RData` – Camera data for female white-tailed deer on the Bear Island Unit camera trapping array. Use this data in conjunction with the `unmarked_nimble_AR1.R` file in unmarked folder.

Variable descriptions and structure:

- n - Detection histories (detected/not detected) counts of female deer
    - matrix[trap, sampling occasions]
- n3D - Split n into 3D array for modeling fortnights
    - array[trap, secondary sampling occasion, primary sampling occasion]
- prior_means - Detection parameter priors from marked posterior means
    - matrix[primary sampling occasion, (sigma, lam0)]]
- prior_varcov - Detection parameter prior variance-covariance matrices from the marked posterior means
    - array[primary sampling occasion, (sigma, lam0), (sigma, lam0)]
- x - Trap locations for the specific camera grid in UTM coordinate system (m)
    - array[UTME, UTMN]
- biweek – fortnight periods
    - vector
- oper - Camera operational status matrix. 1 indicates cameras was operational, 0 indicates the camera wasn't available.
    - array[trap, secondary occasion, primary period]

`trap_locations.csv` – Camera locations. Use this data in conjunction with the `sim_data.R` file in supp folder.