Margenau, L. L. S., M. J. Cherry, K. V. Miller, E. P. Garrison, and R. B. Chandler. Monitoring partially-marked populations with camera and telemetry data. Ecological Applications. *In Review*.

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jags Folder

We provide the JAGS code for conducting the two-stage SMR model with autoregression on the detection parameters and density. Note: The marked analysis within the manuscript is implemented in JAGS, while the unmarked JAGS code is provided as supplemental information and was scripted post-analysis and manuscript completion. The unmarked code in NIMBLE provides a computationally efficient methods for conducting the unmarked two-stage analysis (2-3 days) as opposed to the JAGS implementation (1-2 weeks).

Authors

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

Author: Richard B. Chandler
Affiliation: University of Georgia
Email: rchandler@warnell.uga.edu

File list

`marked_jags_AR1.R`
`unmarked_jags_AR1.R`

Description

`marked_jags_AR1.R` – Model development for fortnight detection parameter estimates from camera and telemetry data for the female marked deer population on the Bear Island Unit. An autoregressive model is implemented on the detection parameters. Model and data are formatted for MCMC sampling in JAGS. Use this model in conjunction with `marked_data.RData` file in the data folder

`unmarked_jags_AR1.R` – Autoregressive unmarked model for camera data for the Bear Island Unit. Implementation of unmarked (stage two) SMR model using the JAGS MCMC sampler. Use this model in conjunction with the `unmarked_data.RData` file in the data folder.