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Modeling spatiotemporal abundance and movement dynamics using an integrated
spatial capture-recapture movement model. *Ecology*.

Data S2

R scripts and data files to fit the case study integrated spatial capture- recapture (SCR) movement model.

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File list (files found within DataS2.zip)

```
CaseStudyData.txt  
SCR_mvmt_CaseStudy.R  
SCR_mvmt_CaseStudy_SamplersAndFunctions.R
```

Description

`CaseStudyData.txt` - This text file contains the data described in the cast study. Data are loaded and formatted via the `SCR_mvmt_CaseStudy.R` R script. Data include spatial capture-recapture data (nSCR, z, y, y0, nSurveys, effort, sex), GPS telemetry data (uGPS), ARGOS telemetry data (uARGOS), counts of cubs per female (dependents), and the spatial details of the state-space described in the manuscript (xlim, ylim, gcoords, HabCovX, cellsX, cellsY).

`SCR_mvmt_CaseStudy.R` - This R script loads and analyzes SCR-movement data described in the cast study, including initial abundance, initial distribution, random walk movement processes, telemetry, and SCR detection processes.

`SCR_mvmt_CaseStudy_SamplersAndFunctions.R` - This R script provides the MCMC functions for the SCR-movement model described in `SCR_mvmt_CaseStudy.R`. While nearly all aspects can be expressed in common BUGS language, these functions greatly improve MCMC efficiency.