

DATA

- (1) **capt13.csv**: Stoat trap capture data for trapping sessions up to January 2013. Used in `mcmcStoat.py`.
- (2) **Capt1113_715.csv**: Stoat trap capture data from July 2013 to January 2015. Used in `mcmcStoat.py`.
- (3) **dateBind.csv**: Dates of each of the trapping session and interval between sessions. Used in `mcmcStoat.py`.
- (4) **traploc5.csv**: Easting and northings of traps used in study
- (5) **covDat.csv**: Habitat covariate data for each 500-m grid cell on island
- (6) **Addtraps5.csv**: Easting and northings of 'gap traps' used in simulation scenarios 4 and 5. Used in simulation.

COMPUTER CODE

Python 3.4.3 was used on Unix with the following packages:

Numpy 1.9.2
Scipy 0.15.1
matplotlib 1.4.3
prettytable 0.7.2

- (1) **mcmcStoat.py**: script to read in data, run mcmc, and write results to directory.
- (2) **startStoat.py**: script to initiate the `mcmcStoat.py` script on the Unix machine.
- (3) **postProcessing.py**: script to read in results from mcmc script (1) and print to screen a table of summary statistics of posterior parameter distributions. It also prints to screen diagnostic trace plots of parameter-estimate chains.
- (4) **simStoat.py**: script to read in mcmc results (1) to sample posterior parameter distributions, and run simulations of management scenarios. The code produces probabilities of control-to-zero density in simulation period. Also printed to screen are graphs of mean population size over the study and simulation periods.