Code and data files for "Measurement error models reveal the scale of consumer movements along an isoscape gradient" (Rodríguez 2021)

Data files:

MEMdataSalmonRasmussen2009.csv

- *Original source: Rasmussen et al. (2009), Supplementary Material, file JANE_1511_sm_AppendixS1.doc; https://doi.org/10.1111/j.1365-2656.2008.01511.x*

MEMdataBluesharkBird2018.csv

- *Original source: Bird et al. (2018); https://datadryad.org/stash/dataset/doi:10.5061/dryad.d1f0d*

MEMdataCatsharkBird2018.csv

- *Original source: Bird et al. (2018); https://datadryad.org/stash/dataset/doi:10.5061/dryad.d1f0d*

R code files:

MEM_empirical_data.r

- *R code to generate results of the section "Results: Estimates of movement scale and fractionation in three fish species"*
- *Reads data from MEMdataSalmonRasmussen2009.csv, MEMdataBluesharkBird2018.csv, or MEMdataCatsharkBird2018.csv*
- *Calls Stan programs MEMgaussian.stan, MEMlaplace.stan, or MEMstudent.stan*
- *Loads required functions from MEMfunctions.r*

MEM_simulated_data.r

- *R code to generate results of the section "Results: Performance of estimators in simulated scenarios"*
- *Calls Stan program MEMsims.stan*
- *Loads required functions from MEMfunctions.r*

MEMfunctions.r

- *R libraries and functions sourced by R programs MEM_empirical_data.r and MEM_simulated_data.r*

Stan code files:

MEMgaussian.stan; MEMlaplace.stan; MEMstudent.stan

- *Stan code to generate results for the section "Applications of the model: quantifying the movements of three fish species"*
- *Are called by R program MEM_empirical_data.r*

MEMsims.stan

- *Stan code to generate results of the section "Results: Performance of estimators in simulated scenarios"*
- *Is called by R program MEM_simulated_data.r*