library(ctmm)

setwd("W:\\Home\\anaveda\\private")

##pass vu to as.telemetry

vulture<-as.telemetry("Vultures position Summer-Fall 2020 MBf id+day.csv")

##read calibration data

cal<-as.telemetry("Calibration data CTT E-400 MB unit 12340 Nov15-21.csv")

#calibrate

UERE <- uere.fit(cal) # only using calibration data

#summary(UERE)

uere(vulture)<-UERE

names(vulture[[10]])

V.zFITS <- list()

V.FITS <- list()

V.AKDE <- list()

V.PRED <- list()

V.SPEED <- list()

for(i in 1:length(vulture))

{

print(i)

# fit vertical movement model

zSVF <- variogram(vulture[[i]], axes="z")

zGUESS <- ctmm.guess(vulture[[i]],variogram=zSVF,CTMM=ctmm(error=TRUE),interactive=F)

V.zFITS[[i]] <- ctmm.select(vulture[[i]],zGUESS,trace=2)

# fit horizontal movement model

SVF <- variogram(vulture[[i]])

GUESS <- ctmm.guess(vulture[[i]],CTMM=ctmm(error=TRUE),interactive=F)

V.FITS[[i]] <- ctmm.select(vulture[[i]],GUESS,trace=2)

#V.AKDE[[i]] <- akde(vulture[[i]],V.FITS[[i]],trace=TRUE)

V.PRED[[i]] <- predict(vulture[[i]],CTMM=V.FITS,VMM=V.zFITS,complete=TRUE)

V.SPEED[[i]] <- speed(vulture[[i]],V.FITS[[i]],trace=TRUE)

}

[1] 1

\* Fitting model OUF isotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model OU isotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model OUf isotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model IID isotropic error

Maximizing likelihood.

Calculating Hessian.

Error in dim(z) <- c(n, OBS \* DIM, VEC) :

dims [product 228] do not match the length of object [285]

Error in dim(z) <- c(n, OBS \* DIM, VEC) :

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dims [product 228] do not match the length of object [285]

Profiling REML likelihood.

Calculating REML Hessian.

Error in dim(z) <- c(n, OBS \* DIM, VEC) :

dims [product 228] do not match the length of object [285]

In addition: Warning message:

In ctmm.fit(data, GUESS, trace = trace2, ...) :

pREML failure: indefinite ML Hessian or divergent REML gradient.

Error in dim(z) <- c(n, OBS \* DIM, VEC) :

dims [product 228] do not match the length of object [285]

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dims [product 228] do not match the length of object [285]

\* Fitting model OUO isotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

Error in dim(z) <- c(n, OBS \* DIM, VEC) :

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dims [product 228] do not match the length of object [285]

\* Fitting model OUF isotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model OUF anisotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model OU isotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model OU anisotropic error

Maximizing likelihood.

Calculating Hessian.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model OUf isotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model OUf anisotropic error

Maximizing likelihood.

Calculating Hessian.

Calculating REML gradient.

Profiling REML likelihood.

Calculating REML Hessian.

\* Fitting model IID anisotropic error

Maximizing likelihood.

Calculating Hessian.

Profiling REML likelihood.

Calculating REML Hessian.

Error in get(object$mean) : invalid first argument

In addition: Warning messages:

1: In ctmm.fit(data, GUESS[[1]], trace = trace2, ...) :

pREML failure: indefinite ML Hessian or divergent REML gradient.

2: In ctmm.fit(data, GUESS[[1]], trace = trace2, ...) :

pREML failure: indefinite ML Hessian or divergent REML gradient.