The trip package

Michael D. Sumner

2013

Abstract

The trip package provides tools for working with animal track data.

1 Introduction

Basic use of the trip package.

2 Data input and validation

```r
> library(trip)
> d <- data.frame(x = 1:10, y = rnorm(10), tms = Sys.time() + 1:10,
+   id = gl(2, 5))
> coordinates(d) <- ~x + y
> proj4string(d) <- CRS("+proj=laea")
> tr <- trip(d, c("tms", "id"))
> summary(tr)

Object of class trip
tripID ("id") No.Records startTime ("tms") endTime ("tms") tripDuration
1 1 5 2014-11-05 11:34:10 2014-11-05 11:34:14 4 secs

tripDistance meanSpeed maxSpeed meanRMSspeed maxRMSspeed
1 5.508260 4957.434 6199.441 1252.822 5011.289
2 8.960405 8064.364 9253.867 1752.435 7009.741

Total trip duration: 8 seconds (0 hours, 8 seconds)

Derived from Spatial data:

Object of class SpatialPointsDataFrame
Coordinates:

  min     max
x 1.0000000 10.000000
y -1.765506 1.191484
Is projected: TRUE
proj4string : [+proj=laea]
Number of points: 10
Data attributes:
  tms     id
Min. :2014-11-05 01:34:10 1:5
1st Qu.:2014-11-05 01:34:13 2:5
Median :2014-11-05 01:34:15
```

1
3 Simple plotting

> plot(tr)
> lines(tr)

![Plot of a very simple trip object.](image)

Figure 1: Plot of a very simple trip object.

4 Gridding for time spent

> tg <- tripGrid(tr)
> image(tg, col = c("transparent", heat.colors(25)))
5 Example data from diveMove