Package: SocCaribou (via r-universe)

November 21, 2024

Title Package Accompanying: Space-use and social organization in a
gregarious ungulate: testing the conspecific attraction and
resource dispersion hypotheses

Version 0.1.0

Description Package Accompanying: Space-use and social organization in
a gregarious ungulate: testing the conspecific attraction and
resource dispersion hypotheses

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Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

Imports igraph, data.table, adehabitatHR, sp, asnipe, spatsoc

RoxygenNote 6.1.1

Config/pak/sysreqs libgdal-dev gdal-bin libgeos-dev libglpk-dev
libxml2-dev libssl-dev libproj-dev libsqlite3-dev
libudunits2-dev

Repository https://robitalec.r-universe.dev

RemoteUrl https://github.com/wildlifeevoeco/SocCaribou

RemoteRef HEAD

RemoteSha 3baea0f1cdbb463a50e6aba104b4654a431834bb

Contents

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check_col   *check col*

Description

check col

Usage

```
check_col(DT = NULL, col = NULL, arg = NULL, extra = NULL)
```

Arguments

DT	data.table
col	column name
arg	argument name
extra	extras

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dynamic_network   *Dynamic network*

Description

Dynamic network

Usage

```
dynamic_network(DT = NULL, id = NULL, by = NULL)
```

Arguments

DT	'data.table" of relocations.
id	individual identifier column name.
by	columns in input DT to split home range network generation and comparison by. For example: c('season', 'year') or 'herd'. Expects character vector.

Value

Graph strength for each individual.

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hr_network   *Homerange Networks*

Description

Build home range networks using `adehabitatHR::kerneloverlap` and returns either graph statitics or home range overlap.

Usage

```
hr_network(DT = NULL, id = NULL, utm = NULL, by = NULL,
  returns = NULL)
```

Arguments

DT	'data.table" of relocations.
id	individual identifier column name.
utm	proj4string indicating coordinate system of coordinates
by	columns in input DT to split home range network generation and comparison by. For example: c('season', 'year') or 'herd'. Expects character vector.
returns	either 'network-stats' or 'overlap'. See Details.

Details

`DT` provided with columns EASTING, NORTHING for UTM coordinates. by argument used to specify grouping. Defaults only (as used in the paper).

Value

graph strength for each individual

---

step_length   *Step Length*

Description

Calculate basic step length with data.table

Usage

```
step_length(DT, coords = c("EASTING", "NORTHING"), time = "datetime",
  splitBy = c("id", "yr"), moverate = FALSE, type = "lag",
  preserve = FALSE)
```

Arguments

DT	data.table
coords	character vector, length 2, coordinate column names. UTM required.
time	character time column name.
splitBy	character vector of column names to split step length calculation by. default is id and yr (individual identifier and year as numeric).
moverate	calculate movement rate? stepLength / dif time, unit hours.
type	default: lag. alternative: lead.
preserve	preserve intermediate cols? default: no.

Examples

```
# Load data.table
library(data.table)

# Read example data
DT <- fread(system.file("extdata", "DT.csv", package = "toast"))

DT[, datetime := as.POSIXct(datetime)]

DT[, yr := year(datetime)]

step_length(DT, coords = c('X', 'Y'), splitBy = c('ID', 'yr'))
```

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