

Package: territoria (via r-universe)

September 10, 2024

Type Package

Title Clustering Observations from Breeding Birds into Territoria

Version 0.0.3

Description Clusters individual observations based on breeding indication and distance between observations.

License GPL-3

URL <https://github.com/inbo/territoria>

BugReports <https://github.com/inbo/territoria/issues>

Imports assertthat, mvtnorm, RSQLite, spatstat.geom, spatstat.random

Config/checklist/communities inbo

Config/checklist/keywords breeding bird; cluster

Encoding UTF-8

Language en-GB

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.3

Repository <https://thierryo.r-universe.dev>

RemoteUrl <https://github.com/inbo/territoria>

RemoteRef HEAD

RemoteSha 23e08ce479aefe17928d61c74e6a0bb8c6b249a5

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cluster_observation *Cluster observations*

Description

Cluster observations

Usage

```
cluster_observation(conn, status, max_dist = 336, reset = FALSE)
```

Arguments

conn	a DBI connection to an SQLite database.
status	highest status to include while clustering the observations.
max_dist	maximum clustering distance in m.
reset	reset the current clustering. Defaults to FALSE

connect_db *Connect to a database*

Description

Connect to a database

Usage

```
connect_db(db = ":memory:")
```

Arguments

db	The file name of the database
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distance_matrix	<i>Calculate the distance matrix</i>
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Description

Calculate the distance matrix

Usage

```
distance_matrix(conn, max_dist = 336)
```

Arguments

conn	a DBI connection to an SQLite database.
max_dist	maximum clustering distance in m.

get_cluster	<i>Get the information from the clusters</i>
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Description

Get the information from the clusters

Usage

```
get_cluster(conn)
```

Arguments

conn	a DBI connection to an SQLite database.
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import_observations	<i>Import the observations</i>
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Description

The function overwrites any existing table with observations.

Usage

```
import_observations(observations, conn, max_dist = 336)
```

Arguments

observations	a data.frame with the observations.
conn	a DBI connection to an SQLite database.
max_dist	maximum clustering distance in m.

simulate_observations *Simulate a dataset in a square area*

Description

Simulate a dataset in a square area

Usage

```
simulate_observations(  
  density = 1e-05,  
  area = 4e+06,  
  gamma = 0.5,  
  max_dist = 336,  
  n_survey = 4,  
  p_detection = 0.6,  
  status_distribution = c(0.2, 0.5, 0.3)  
)
```

Arguments

density	Density as the number of territoria per m ² .
area	Area in which to simulate territoria in m ² .
gamma	interaction parameter of the Strauss process. See gamma in spatstat.core::rStrauss().
max_dist	maximum clustering distance in m.
n_survey	Number of surveys.
p_detection	Probability of detection within a survey.
status_distribution	a weighting vector for statuses. The order of the vector is the number of the status.

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