Package 'klexdatr'

May 4, 2020

Title Kootenay Lake Exploitation Study Data

Version 0.1.0

Description Six relational 'tibbles' from the Kootenay Lake Large Trout Exploitation study.
The study which ran from 2008 to 2014 caught, tagged and released large Rainbow Trout and Bull Trout
in Kootenay Lake by boat angling.
The fish were tagged with internal acoustic tags and/or high reward external tags
and subsequently detected by an acoustic receiver array as well as reported by anglers.
The data are analysed by Thorley and Andrusak (1994) <doi:10.7717/peerj.2874>
to estimate the natural and fishing mortality of both species.

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Depends R (>= 3.3)

Suggests chk, covr, testthat, tibble

URL https://github.com/poissonconsulting/klexdatr

BugReports https://github.com/poissonconsulting/klexdatr/issues

LazyData true

RoxygenNote 7.1.0

Encoding UTF-8

NeedsCompilation no

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R topics documented:

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capture   *Fish Capture Data*

Description

Fish Capture Data

Usage

```
capture
```

Format

A tbl data frame:

Capture The unique fish code (fctr).

DateTimeCapture The date and time of capture (time).

SectionCapture The section code (fint).

Species The fish species 'Bull Trout', 'Lake Trout' or 'Rainbow Trout' (fctr).

Length The fork length in mm (int).

Weight The wet mass in kg (dbl).

Reward1 The reward value of the first T-Bar tag in Canadian dollars (int).

Reward2 The reward value of the second T-Bar tag if present in Canadian dollars (int).

DateTimeTagExpire The acoustic tag expiration date and time (time).

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deployment   *Receiver Deployment Data*

Description

A data frame of receiver deployments by station and date times.

Usage

```
deployment
```

Format

A tbl data frame:

Station The station name (fctr).

Receiver The receiver code (fctr).

DateTimeReceiverIn The receiver deployment date and time (time).

DateTimeReceiverOut The receiver retrieval date and time (time).

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detection   *Acoustic Detection Data*

Description

Hourly acoustic detection data by fish (capture) and receiver.

Usage

```
detection
```

Format

A tbl data frame:

DateTimeDetection The detection date and hour (time).

Capture The fish code (fctr).

Receiver The receiver code (fctr).

Detections The number of detections in the hour (int).

---

recapture   *Fish Recapture Data*

Description

A tbl data frame of fish recaptures. As the time of recapture was not reported it is assumed to be 12:00:00.

Usage

```
recapture
```

Format

A tbl data frame:

DateTimeRecapture The reported date of recapture (time).

Capture The fish code (fctr).

SectionRecapture The section code (fctr).

TBarTag1 The first T-Bar Tag was reported (lgl).

TBarTag2 A second T-Bar Tag was reported (lgl).

TagsRemoved The T-Bar tags were removed from the fish (lgl).

Released The angler reportedly released the fish (lgl).

Public The angler was a member of the public as opposed the study team (lgl).

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section   *Section Data*

Description

Section Spatial Polygon Data

Usage

```
section
```

Format

A SpatialPolygonsDataFrame with the data frame:

Section The unique section code (fctr).

Habitat The habitat type 'Lentic' or 'Lotic' (fctr).

Bounded The polygon represents the full area (lgl).

geometry The section polygon (MULTIPOLYGON (m)).

Details

Polygons of sections of the waterbodies.

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station	*Station Data*

Description

A tbl data frame of detection stations.

Usage

```
station
```

Format

A tbl data frame:

Station The unique station name (fctr).

Section The section code (fctr).

geometry The station point (POINT (m)).

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