

# Package: klexdatr (via r-universe)

January 17, 2025

**Title** Kootenay Lake Exploitation Study Data

**Version** 0.1.2

**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](https://doi.org/10.7717/peerj.2874)> to estimate the natural and fishing mortality of both species.

**License** CC BY 4.0

**Depends** R (>= 3.4)

**Imports** sf

**Suggests** chk, covr, testthat, tibble

**URL** <https://github.com/poissonconsulting/klexdatr>

**BugReports** <https://github.com/poissonconsulting/klexdatr/issues>

**LazyData** true

**RoxygenNote** 7.1.1

**Encoding** UTF-8

**NeedsCompilation** no

**Author** Joe Thorley [aut, cre, dtc] (<<https://orcid.org/0000-0002-7683-4592>>), Greg Andrusak [aut, dtc], Gary Pavan [aut, dtc], Sarah Stephenson [aut, dtc], Matt Neufeld [aut, dtc], Jeff Burrows [aut, dtc], Kerry Reed [aut, dtc], Robyn Irvine [aut, dtc], Harvey Andrusak [aut, dtc], James Baxter [dtc], Rob Bison [dtc], Mike Ramsay [dtc], Habitat Conservation Trust Foundation [cph, fnd], Fish and Wildlife Compensation Program [cph, fnd], Freshwater Fish Society of BC [cph, fnd], Ministry of Environment [cph, dtc], Bonneville Power Administration [cph, fnd], Idaho Department of Fish and Game [cph], Kootenai Tribe of Idaho [cph]

**Maintainer** Joe Thorley <joe@poissonconsulting.ca>

**Date/Publication** 2021-05-29 21:00:02 UTC

**Additional\_repositories** <https://cranhaven.r-universe.dev>

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

**Repository** <https://cranhaven.r-universe.dev>

**RemoteUrl** <https://github.com/cranhaven/cranhaven.r-universe.dev>

**RemoteRef** package/klexdatr

**RemoteSha** 3392c93def17a14140fae4b5d42cc90293bca088

**RemoteSubdir** klexdatr

## Contents

capture . . . . .	2
deployment . . . . .	3
detection . . . . .	3
recapture . . . . .	4
section . . . . .	4
station . . . . .	5

<b>Index</b>	<b>6</b>
--------------	----------

---

capture	<i>Fish Capture Data</i>
---------	--------------------------

---

## 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).

---

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).

---

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).

---

 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.

---

station	<i>Station Data</i>
---------	---------------------

---

**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)).

# Index

## \* datasets

- capture, [2](#)
- deployment, [3](#)
- detection, [3](#)
- recapture, [4](#)
- section, [4](#)
- station, [5](#)

capture, [2](#)

deployment, [3](#)  
detection, [3](#)

recapture, [4](#)

section, [4](#)  
station, [5](#)