Package: kootlake (via r-universe)

November 16, 2024

Title Kootenay Lake Data

Version 0.3.1.9001

Description Annual Rainbow Trout, Bull Trout and Kokanee datasets for
Kootenay Lake.

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Depends R (>= 3.6)

Imports chk, stats, lifecycle

Suggests broom, covr, ggplot2, knitr, rmarkdown, tibble, testthat

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

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

LazyData true

RoxygenNote 7.2.0

VignetteBuilder knitr

Encoding UTF-8

RdMacros lifecycle

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

RemoteUrl https://github.com/poissonconsulting/kootlake

RemoteRef HEAD

RemoteSha 07c83cf3536477381954e51469948f4eaf328df7

Contents

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bulltrout   *Bull Trout Counts*

Description

The annual resistivity counter and redd counts for Kaslo and Keen Creeks.

Usage

```
bulltrout
```

Format

A tbl data frame:

Year The year (int).

KasloRedds The Kaslo Creek redd count (int).

KeenRedds The Keen Creek redd count (int).

KasloCounter The Kaslo Creek resistivity counter count (int).

See Also

[kootlake](#).

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fish   *Rainbow Trout data*

Description

Data for individual Rainbow Trout in lakes and rivers.

Usage

```
fish
```

Format

A data.frame

Year The year (int).

Month The month (int).

Day The day (int).

Species Species by code eg. "RB" (factor, 1 level).

Length Fork length in mm (int).

Weight Weight in kg (int).

Sex Sex, "male" or "female" (factor, 2 levels).

Fecundity number of eggs (int).

Location Lake or River (factor, 2 levels)

SampleID Sample ID

Source The source of the data (char).

Comment comments for observations with year date ranges (char).

See Also

kootlake.

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fishery   *Kootenay Lake Fishery*

Description

The Kootenay Lake fishery data.

Usage

fishery

Format

A data.frame:

StartYear The start year of the angling season which runs from April to March (int).

EndYear The end year of the angling season which runs from April to March (int).

Licences The number of KLRT licenses sold (int).

Mailings Number of end of season surveys mailed out to licence holders (int).

Returns Number of filled surveys returned (int).

AnglerHours The estimated number of angler hours expended by anglers who purchased a Kootenay Lake Rainbow Trout (KLRT) Conservation Surcharge License (int).

See Also

kootlake.

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fishery_catch   *Fishery Catch Counts*

Description

Harvested and Released counts for Bull and Rainbow Trout

Usage

fishery_catch

Format

A data.frame

StartYear The start year of the angling season (int).

EndYear The end year of the angling season (int).

Harvested Estimated count of individuals harvested (int).

Released Estimated count of individuals released (int).

MinWeight Bottom of weight range (int).

MaxWeight Top of weight range (int).

Species Species, RB or BT (factor. 2 levels).

See Also

kootlake.

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gerrard   *Gerrard Escapement*

Description

The Gerrard Rainbow Trout spawner counts.

Usage

gerrard

Format

A data.frame:

Year The year of the spawner count (int).

PeakCount The peak count (int).

FishDays The total number of fish days (int).

FishRemoved The total number of fish removed prior to spawning.

Details

The total escapement can be estimated by multiplying the peak count by 3.08 or by dividing the total number of fish days by the residence time (currently) assumed to be 11.9 days.

See Also

[kootlake](#).

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kl_estimate_na *Estimate Missing Values*

Description

Estimates missing variable values from a predictor using a linear model.

Usage

```
kl_estimate_na(
  x = kootlake::bulltrout,
  variable = "KasloRedds",
  predictor = "KasloCounter"
)
```

Arguments

x	A data frame with columns of the variable and predictor.
variable	A string of the name of the variable column.
predictor	A string of the name of the predictor column.

Value

The original data frame with missing variable values replaced by the estimated value.

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kokanee *Kokanee Escapement*

Description

The Kokanee escapement.

Usage

kokanee

Format

A data.frame:

Year The year (int).

Lardeau The Lardeau River escapement (int).

MeadowCreek The Meadow Creek escapement (int).

Fecundity The mean number of eggs per female (int).

LengthMale The mean male spawner fork length in mm (int).

LengthFemale The mean female spawner fork length in mm (int).

See Also

kootlake.

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kootlake *Kootenay Lake Data*

Description

Annual Rainbow Trout, Bull Trout and Kokanee datasets for Kootenay Lake.

Details

It includes the 'kl_estimate_na()' function to estimate missing variable values from a predictor using a linear model. By default it estimates missing Bull Trout redd counts for Kaslo Creek using the resistivity counter counts.

See Also

bulltrout, fishery, gerrard and kokanee

Examples

```
library(ggplot2)

data(gerrard)
gerrard$Escapement <- gerrard$PeakCount * 3.08

ggplot(data = gerrard, aes(x = Year, y = Escapement)) +
  geom_line() + expand_limits(y = 0)
```

temp_function   *temp_function*

Description

function included as workaround for issue: https://github.com/r-lib/covr/issues/427

Usage

```
temp_function(x)
```

Arguments

x   Any object

Value

The same object.

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