

Package: WtAgeRe (via r-universe)

May 31, 2026

Type Package

Title Fish Body Mass at Age Estimation

Version 0.1.0

Description A random effects model for estimating variance in weight-at-age, with utilities to read ADMB outputs and plot weight-at-age anomalies.

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URL <https://afsc-assessments.github.io/WtAgeRe/>

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.3

Imports dplyr, tidyr, ggplot2, scales

Suggests knitr, RTMB, rmarkdown

VignetteBuilder knitr

Config/pak/sysreqs libicu-dev

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

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Contents

colr	2
fn_get_pred	2
fn_plot_anoms	3
read_admb	4
read_ctl	4

read_dat	5
read_fit	5
read_psv	6
read_rep	6
replace_zeros_with_mean	7
replace_zeros_with_two	7
write_dat	8

Index	9
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colr	<i>Transparent colors</i>
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Description

Transparent colors

Usage

```
colr(col.pal = 1, a = 1)
```

Arguments

col.pal	Color palette or vector of colors.
a	Numeric alpha in $[0, 1]$.

Value

Character vector of colors with alpha applied.

Note

Author: Nathan Stephens (hacks package)

fn_get_pred	<i>Get predicted weight-at-age</i>
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Description

Read ADMB output and return predicted weight-at-age by year.

Usage

```
fn_get_pred(file = c("wt"), dat = NULL, source = c("model"), age_range = NULL)
```

Arguments

file	Character vector of base filenames (no extension). Default is "wt".
dat	Optional data list used to infer age range (indices 8 and 9).
source	Character vector of model labels for each file.
age_range	Optional numeric vector of ages to use as column names.

Value

A data frame with year, age columns, and a source column.

fn_plot_anoms	<i>Plot weight-at-age anomalies</i>
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Description

Plot weight-at-age anomalies

Usage

```
fn_plot_anoms(dfin, maxage = 10, firstyr = 1982, minage = 3, txtsize = 3)
```

Arguments

dfin	Data frame output from fn_get_pred().
maxage	Maximum age to plot.
firstyr	First year to include.
minage	Minimum age to plot.
txtsize	Text label size.

Value

A ggplot object.

read_admb	<i>Read ADMB output files</i>
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Description

Read ADMB output files .rep, .par, and .cor and return an R object of type 'list'

Usage

```
read_admb(repfile)
```

Arguments

repfile ADMB output files to be read (no extension needed)

Value

object of type 'list' with ADMB outputs as list elements

Author(s)

Steve Martell, Anders Nielsen, Athol Whitten, D'Arcy N. Webber

read_ctl	<i>Read ADMB .ctl file</i>
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Description

Read ADMB .ctl file and return an R object of type 'list'. DOES NOT WORK

Usage

```
read_ctl(fn)
```

Arguments

repfile name of ADMB output file to be read

Value

object of type 'list' with ADMB outputs therein

Author(s)

D'Arcy N. Webber

read_dat	<i>Read ADMB data files</i>
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Description

Read ADMB data files

Usage

```
read_dat(datfile)
```

Arguments

reprofile ADMB output files to be read (no extension needed)

Value

object of type 'list' with ADMB outputs as list elements

Author(s)

Steve Martell, Anders Nielsen, Athol Whitten, D'Arcy N. Webber

read_fit	<i>Read ADMB .par, .std, and .cor file and return an R object of type 'list' of estimates and correlations</i>
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Description

Read ADMB .par, .std, and .cor file and return an R object of type 'list' of estimates and correlations

Usage

```
read_fit(reprofile)
```

Arguments

reprofile name of ADMB output file to be read (no extension needed)

Value

object of type 'list' with ADMB outputs therein

Author(s)

Steve Martell, Anders Nielsen, Athol Whitten, D'Arcy N. Webber

read_psv	<i>Read ADMB .psv file</i>
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Description

Read ADMB .psv file and return an R object of type 'list'

Usage

```
read_psv(fn, nsamples = 10000)
```

Arguments

repfile name of ADMB output file to be read (no extension needed)

Value

object of type 'list' with ADMB outputs therein

Author(s)

Steve Martell

read_rep	<i>Read ADMB .rep file</i>
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Description

Read ADMB .rep file and return an R object of type 'list'

Usage

```
read_rep(fn)
```

Arguments

fn name of ADMB output file to be read (no extension needed)

Value

object of type "list" with ADMB outputs therein

Author(s)

Steve Martell, D'Arcy N. Webber

replace_zeros_with_mean

Replace outliers with mean for mean weight-at-age

Description

Replace outliers with mean for mean weight-at-age

Usage

replace_zeros_with_mean(column)

Arguments

column Numeric vector.

Value

Numeric vector with outliers replaced by the mean of non-zero values.

replace_zeros_with_two

Replace zeros with near-two for SD

Description

Replace zeros with near-two for SD

Usage

replace_zeros_with_two(column)

Arguments

column Numeric vector.

Value

Numeric vector with zeros replaced by 1.9999.

write_dat	<i>Write ADMB data file</i>
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Description

Write ADMB data file

Usage

```
write_dat(A, datfile)
```

Arguments

A	List of ADMB objects.
datfile	Output data file path.

Value

Invisibly returns NULL.

Index

`colr`, 2

`fn_get_pred`, 2

`fn_plot_anoms`, 3

`read_admb`, 4

`read_ctl`, 4

`read_dat`, 5

`read_fit`, 5

`read_psv`, 6

`read_rep`, 6

`replace_zeros_with_mean`, 7

`replace_zeros_with_two`, 7

`write_dat`, 8