aquaR

Gerrit Timmerhaus

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aquaR: Plots and funtions for aquaculture research

Introduction

This package is work in progress and currently contains functions which plot and run basic statistics on given data, as it is commonly used in aquaculture and fish research.

Funtions

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sterr

Description

Calculates the standard error of a given numeric vector. It is called from most functions in this package.

Usage

```
sterr(x)
```

Arguments

argument	description
x	numeric vector. NAs will be removed before cacluation.

Examples

```
x <- c(2,3,4,NA,3,2,0)
sterr(x)
```

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plot.err

Description

Plot the means of a numeric vector, grouped by a group vector. ± standard error bars or standard deviation error bars are added to the plotted means. ANOVA results can be added optionally.

Usage

```
plot.err(data = x, groups = g, ...)
```

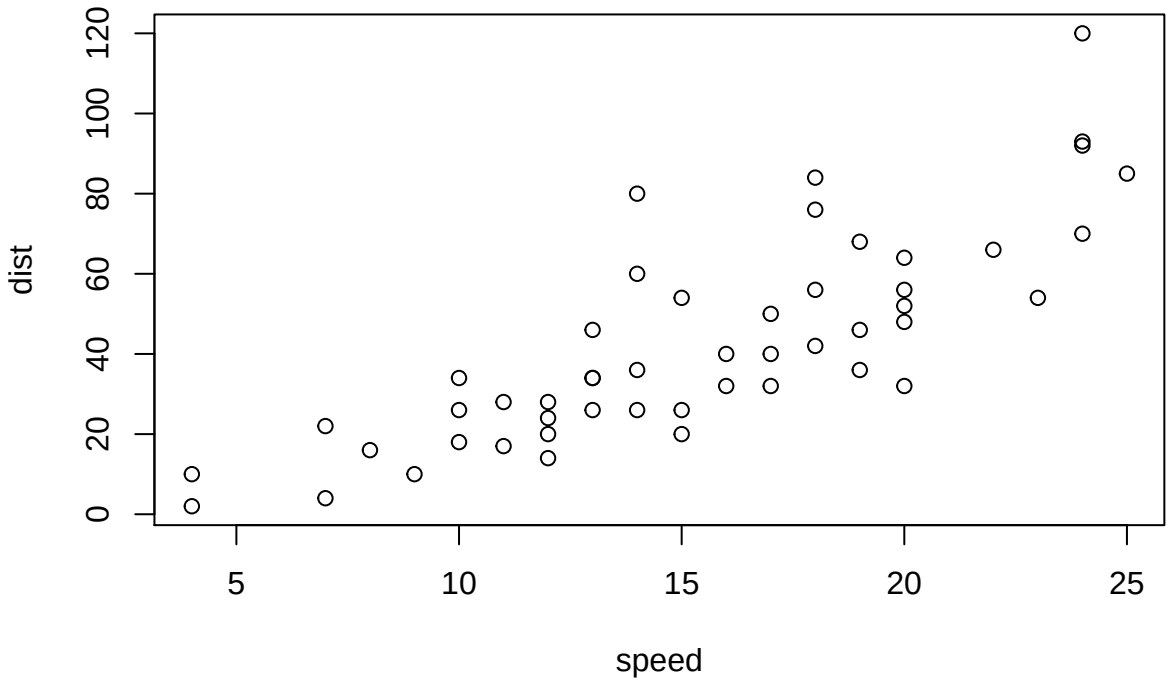
Arguments

argument	description
data	numeric vector. NAs are allowed and will be removed for mean cacluation.
group	group vector defining the groups in data.
type	one of “dot”, “bar” or “diffbar” for mean value representation as dots,
.	bars or bars which are centered around the overall mean.
err.bars	one of “sterr” (default) or “sd”. Defines if error bars should represent
.	± standard error or standard deviaton.
length	defines the legnth of the heads of the error bars.
lwd	defines the line width of error bars.
barwidth	defines the width of bars.
col	vector of equal length as number of groups, containing the desired colors.
at	optinal to adjust the x-position of the means in the plot.
cex	defines size of dots.
xlab	set x-axis label.
ylab	set y-axis label.
xaxt	if TRUE (default) the x-axis will be added to the plot.
main	adds a title to the plot.
las.x	either 1 or 2. text orientation of the x-axis labels.
las.y	either 1 or 2. text orientation of the y-axis labels.
cex.yaxis	scaling for y-axis labels.
cex.xaxis	scaling for x-axis labels.
yscale	vector of length two to set the y-axis upper and lower limits.
stats	add ANOVA results to the plot.
stats.mark	add stars to significant ANOVA results.
sig.groups	vector with significance marker (e.g. Tukey groups), which will be places
.	over the error bars (order is 1:n and not according to at!)

Examples

```
plot.err(data=c(1,2,3,5,3,2,4,12), groups = c(rep("a",4),rep("b",4)))
```

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.