Package ‘fishualize’

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Type Package
Title Color Palettes Based on Fish Species
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License GPL-2
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BugReports https://github.com/nschiett/fishualize/issues
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R topics documented:

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Description

This function creates a vector of \( n \) equally spaced colors along the 'fish colour map' of your selection.

Usage

\[
\text{fish}(n, \text{alpha} = 1, \text{begin} = 0, \text{end} = 1, \text{direction} = 1, \\
\text{option} = "\text{Centropyge\_loricula}")
\]

\[
\text{fish\_pal}(\text{alpha} = 1, \text{begin} = 0, \text{end} = 1, \text{direction} = 1, \\
\text{option} = "\text{Centropyge\_loricula}")
\]

Arguments

- \( n \): The number of colors (\( \geq 1 \)) to be in the palette.
- \( \text{alpha} \): The alpha transparency, a number in \([0,1]\), see argument alpha in \text{hsv}.
- \( \text{begin} \): The (corrected) hue in \([0,1]\) at which the fish colormap begins.
- \( \text{end} \): The (corrected) hue in \([0,1]\) at which the fish colormap ends.
- \( \text{direction} \): Sets the order of colors in the scale. If 1, the default, colors are ordered from darkest to lightest. If -1, the order of colors is reversed.
- \( \text{option} \): A character string indicating the fish species to use.

Value

fish returns a character vector, \( cv \), of color hex codes. This can be used either to create a user-defined color palette for subsequent graphics by \text{palette}(cv), a \text{col = specification in graphics functions or in par}.

Semi-transparent colors (\( 0 < \text{alpha} < 1 \)) are supported only on some devices: see \text{rgb}.

Examples

\begin{verbatim}
library(ggplot2)
library(hexbin)

dat <- data.frame(x = rnorm(1e4), y = rnorm(1e4))
ggplot(dat, aes(x = x, y = y)) +
  geom_hex() +
  coord_fixed() +
  scale_fill_gradientn(colours = fish(128, option = 'Ostracion\_cubicus'))

pal <- fish(256, option = "Thalassoma\_hardwicke", direction = -1)
image(volcano, col = pal)
\end{verbatim}
Description
A dataset containing some colour palettes inspired by fish species

Usage
fishcolors

Format
A data frame containing all the colours used in the palette:

- option: It is intended to be a general option for choosing the specific colour palette.
- hex: hex color code

Description
This function creates an image of the specified fish color palette.

Usage
fishualize(option = "Centropyge_loricula", n = 5, ...)

Arguments

- option A character string indicating the fish species to use.
- n The number of colors (≥ 1) to be in the palette.
- ... Other arguments as can be specified in the function fish. See ?fishualize::fish for details.

Value
fishualize returns a visualisation of the specified color palette.

Examples
fishualize::fishualize()
fishualize::fishualize(option = "Zanclus_cornutus", n = 8)
### fish_palettes

**Available Palettes.**

This function returns a vector containing the names of all the available palettes in the 'fishualize' package.

**Usage**

```r
fish_palettes()
```

**Value**

`fish_palettes` returns a character vector with the names of the fish palettes available to use.

**Examples**

```r
fish_palettes()
```

### scale_color_fish

**fish colour scales**

Uses the fish color scale.

**Usage**

```r
scale_color_fish(option = "Centropyge_loricula", ..., alpha = 1, begin = 0, end = 1, direction = 1, discrete = FALSE)
scale_colour_fish(option = "Centropyge_loricula", ..., alpha = 1, begin = 0, end = 1, direction = 1, discrete = FALSE)
scale_colour_fish_d(option = "Centropyge_loricula", ..., alpha = 1, begin = 0, end = 1, direction = 1)
scale_color_fish_d(option = "Centropyge_loricula", ..., alpha = 1, begin = 0, end = 1, direction = 1)
scale_fill_fish_d(option = "Centropyge_loricula", ..., alpha = 1, begin = 0, end = 1, direction = 1)
scale_fill_fish(option = "Centropyge_loricula", ..., alpha = 1, begin = 0, end = 1, direction = 1, discrete = FALSE)
```
scale_color_fish

Arguments

option A character string indicating the fish species to use.
... parameters to discrete_scale or scale_fill_gradientn
alpha pass through parameter to fish
begin The (corrected) hue in [0,1] at which the fish colormap begins.
end The (corrected) hue in [0,1] at which the fish colormap ends.
direction Sets the order of colors in the scale. If 1, the default, colors are as output by fish_pal. If -1, the order of colors is reversed.
discrete generate a discrete palette? (default: FALSE - generate continuous palette)

Details

For discrete == FALSE (the default) all other arguments are as to scale_fill_gradientn or scale_color_gradientn. Otherwise the function will return a discrete_scale with the plot-computed number of colors.

Examples

library(ggplot2)
library(fishualize)

ggplot(diamonds, aes(factor(cut), fill=factor(cut))) + geom_bar() + scale_fill_fish(discrete = TRUE, option = "Centropyge_loricula")

ggplot(mtcars, aes(factor(gear), fill=factor(carb))) + geom_bar() + scale_fill_fish(discrete = TRUE, option = "Trimma_lantana")

ggplot(mtcars, aes(x = mpg, y = disp, colour = drat)) + geom_point(size = 4) + scale_colour_fish(option = "Ostracion_cubicus", direction = -1)
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