Package 'RColorBrewer'

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Title ColorBrewer Palettes

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Depends R (>= 2.0.0)

Description Provides color schemes for maps (and other graphics)
designed by Cynthia Brewer as described at http://colorbrewer2.org.

License Apache License 2.0

NeedsCompilation no

Repository CRAN

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Contents

RColorBrewer	*ColorBrewer palettes*

Description

Creates nice looking color palettes especially for thematic maps

Usage

```
brewer.pal(n, name)
display.brewer.pal(n, name)
display.brewer.all(n=NULL, type="all", select=NULL, exact.n=TRUE,
colorblindFriendly=FALSE)
brewer.pal.info
```

Arguments

n	Number of different colors in the palette, minimum 3, maximum depending on palette
name	A palette name from the lists below
type	One of the string "div", "qual", "seq", or "all"
select	A list of names of existing palettes
exact.n	If TRUE, only display palettes with a color number given by n
colorblindFriendly	
	if TRUE, display only colorblind friendly palettes

Details

brewer.pal makes the color palettes from ColorBrewer available as R palettes.

display.brewer.pal() displays the selected palette in a graphics window.

display.brewer.all() displays the a few palettes simultanueously in a graphics window.

brewer.pal.info returns information about the available palettes as a dataframe. brewer.pal.info is not a function, it is a variable. This might change in the future.

For details and an interactive palette selection tools see http://colorbrewer.org. It is free to use, although ColorBrewer's designers would appreciate it if you could cite the ColorBrewer project if you decide to use one of our color schemes.

There are 3 types of palettes, sequential, diverging, and qualitative.

1. Sequential palettes are suited to ordered data that progress from low to high. Lightness steps dominate the look of these schemes, with light colors for low data values to dark colors for high data values.
2. Diverging palettes put equal emphasis on mid-range critical values and extremes at both ends of the data range. The critical class or break in the middle of the legend is emphasized with light colors and low and high extremes are emphasized with dark colors that have contrasting hues.
3. Qualitative palettes do not imply magnitude differences between legend classes, and hues are used to create the primary visual differences between classes. Qualitative schemes are best suited to representing nominal or categorical data.

The sequential palettes names are
Blues BuGn BuPu GnBu Greens Greys Oranges OrRd PuBu PuBuGn PuRd Purples RdPu Reds YlGn YlGnBu YlOrBr YlOrRd

All the sequential palettes are available in variations from 3 different values up to 9 different values.

The diverging palettes are
BrBG PiYG PRGn PuOr RdBu RdGy RdYlBu RdYlGn Spectral

All the diverging palettes are available in variations from 3 different values up to 11 different values.

For qualitative palettes, the lowest number of distinct values available always is 3, but the largest number is different for different palettes. It is given together with the palette names in the following table.

Accent   8

Dark2	8
Paired	12
Pastel1	9
Pastel2	8
Set1	9
Set2	8
Set3	12

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The ColorBrewer palettes have been included in this R package with permission of the copyright holder.
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Value

A palette
You will get an error when you ask for a nonexisting palette, and you will get a warning if a palette you asked for exists but not with as many different leves as you asked for.

Note

More information on ColorBrewer is available at its Website, http://www.colorbrewer.org.

Author(s)

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Examples

```
## create a sequential palette for usage and show colors
mypalette<-brewer.pal(7,"Greens")
image(1:7,1,as.matrix(1:7),col=mypalette,xlab="Greens (sequential)",
      ylab="",xaxt="n",yaxt="n",bty="n")
## display a divergent palette
display.brewer.pal(7,"BrBG")
devAskNewPage(ask=TRUE)
## display a qualitative palette
display.brewer.pal(7,"Accent")
devAskNewPage(ask=TRUE)
## display a palettes simultanoeusly
display.brewer.all(n=10, exact.n=FALSE)
devAskNewPage(ask=TRUE)
display.brewer.all(n=10)
devAskNewPage(ask=TRUE)
display.brewer.all()
devAskNewPage(ask=TRUE)
display.brewer.all(type="div")
devAskNewPage(ask=TRUE)
```

```
display.brewer.all(type="seq")
devAskNewPage(ask=TRUE)
display.brewer.all(type="qual")
devAskNewPage(ask=TRUE)
display.brewer.all(n=5,type="div",exact.n=TRUE)
devAskNewPage(ask=TRUE)
display.brewer.all(colorblindFriendly=TRUE)
devAskNewPage(ask=TRUE)
brewer.pal.info
brewer.pal.info["Blues",]
brewer.pal.info["Blues",]$maxcolors
```

Index