Size/Color Maps with Borders

Description

Creates a map with color keyed to one variable, size keyed to another variable, lines showing neighbors, and the option of a map (polygon) outline.

Usage

geo.graph.sizecoloroutline(data, rshape.outline = NULL, 
  xcol = xcol, ycol = ycol, 
  color.col, color.fun = eval, size.col, size.fun = eval, 
  cex.start.size = 1.5, cex.increment.size = .001, 
  dec.dig, graphic.device, output.filename)

Arguments

data
  a data frame containing the data.

rshape.outline
  An object of class map that will be used to plot the polygons. Typically, 
  this is created using read.shapefile() in the maptools package. The default is 
  NULL, in which case only the spatial locations are plotted.

xcol
  the column containing the x-coordinate values in the data frame. The 
  default is a variable called xcol that contains the name of the xcol. If it is 
  typed in directly, it should be quoted; e.g., xcol = “x”.

ycol
  the column containing the y-coordinate values in the data frame. The 
  default is a variable called ycol that contains the name of the ycol. If it is 
  typed in directly, it should be quoted; e.g., ycol = “y”.

color.col
  the name of the variable in data to be plotted using colors. It should be 
  quoted, e.g., “estimate”. Ten color classes are created of equal intervals 
  from the lowest to highest values. So far, the only color palette is, 
  "darkblue", "blue", "cyan3", "cyan", "lightgreen", "greenyellow", 
  "yellow", "orange", "tomato", "red").

color.fun
  the name of a function to be applied to the variable with name color.col 
  for the purposes of creating color classes. An example is color.fun=log.

size.col
  the name of the variable in data to be plotted using different sizes. It 
  should be quoted, e.g., “std.err”. Ten size classes are created of equal 
  intervals from the lowest to highest values. Minimum and maximum 
  symbol sizes are determined using cex.start.size and 
  cex.increment.size.

size.fun
  the name of a function to be applied to the variable with name size.col 
  for the purposes of creating size classes. An example is color.fun=log.
cex.start.size: the size of the first symbol class. The default is cex = 1.5.
cex.increment.size: the increments between symbol class sizes. The default is 0.001, which will cause all symbols to be the same size.
dec.dig: the number of decimal digits when printing the legend to the map.
graphic.device: a graphic device will be started. The default is graphic.device = "windows". The alternative is "postscript", which requires an output filename.
output.filename: The output filename for the graphic device. It should be quoted; e.g., output.filename = "d:\mydata\mygraph.ps"

Examples

# --- AN OMNIDIRECTIONAL EXAMPLE WITH 20 BINS OF SIZE 1000 METERS

go.graph.sizecoloroutline(data = mydata, rshape.outline = import.rshape, xcol = "x", ycol = "y", color.col = "cv.resid", size.col = "cv.se", size.fun = invf, cex.start.size = 1, cex.increment.size = .2, dec.dig = 4, graphic.device = "postscript", output.filename = "d:\mydata\mygraph.ps")