Package ‘limitplot’

February 20, 2015

Type       Package
Title      Jitter/CI Plot with Ordered Points Below the Limit of Detection
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Description Values below a specified limit of detection are stacked in rows in order to reduce overplotting and create a clear graphical representation of your data.
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R topics documented:

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Description

Values below a specified limit of detection are stacked in rows in order to reduce overplotting and create a clear graphical representation of your data.
Usage

\texttt{limitplot(..., lod, CI = 95, ratio = 1/25, shape = 1, size = 1, col = "black", main = "", xlab = "", ylab = "", names = ", axis = 5, stack = 5, jitterwidth = 0.2, jittershape = 1, jittersize = 1, jittercol = "black", log = ", blod = 1/2)}

Arguments

\begin{itemize}
  \item \texttt{...} \quad vector(s) containing the data which to perform the limitplot on. This data set can not contain missing data, and vectors can be of varying lengths.
  \item \texttt{lod} \quad a value that indicates the lower limit of detection. Any value within your data set below this value is reassigned a value of $\texttt{blod} \times \texttt{lod}$.
  \item \texttt{CI} \quad specifies the confidence interval for the boxplot. This interval is calculated from the altered data set after conversion based on the specified limit of detection.
  \item \texttt{ratio} \quad the ratio of the distance between the stacked points below the limit of detection and the distance between the limit of detection and the largest value in the data set.
  \item \texttt{shape} \quad specifies the shape of the points below the limit of detection.
  \item \texttt{size} \quad specifies the size of the points below the limit of detection.
  \item \texttt{col} \quad specifies the color of the points below the limit of detection.
  \item \texttt{main} \quad an overall title for the plot.
  \item \texttt{xlab} \quad label for the x-axis.
  \item \texttt{ylab} \quad label for the y-axis.
  \item \texttt{names} \quad a vector of names for the groups.
  \item \texttt{axis} \quad See the \texttt{yaxp} graphical parameter in \texttt{par}.
  \item \texttt{stack} \quad an integer indicating the number of points below the limit of detection to be stacked per row.
  \item \texttt{jitterwidth} \quad specifies the width of the jitter points.
  \item \texttt{jittershape} \quad specifies the shape of the jitter points.
  \item \texttt{jittersize} \quad specifies the size of the jitter points.
  \item \texttt{jittercol} \quad specifies the color of the jitter points.
  \item \texttt{log} \quad use \texttt{log}="y" for a log-axis.
  \item \texttt{blod} \quad a value indicating the fraction of the limit of detection used to calculate the reassigned values for those below the limit of detection. Any value within your data set below the limit of detection is reassigned a value of $\texttt{blod} \times \texttt{lod}$.
\end{itemize}

Author(s)

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References


See Also

plot, points, rect, par

Examples

```r
## Create a basic limitplot with four different categories
## from log-normally distributed data and set the limit of detection to 0.35:
conc <- rlnorm(150, 0.5, 5)
category <- sample(4, 150, replace = TRUE)
limitplot(conc[category == 1], conc[category == 2],
         conc[category == 3], conc[category == 4],
         lod = 0.35, log = "y")

## Add labels and change the graphical parameters:
limitplot(conc[category == 1], conc[category == 2],
         conc[category == 3], conc[category == 4],
         lod = 0.35, log = "y",
         ylab = "Blag 2 (ug/g)", xlab = "Report of Cockroach in homes",
         names = c("Never", "Rarely", "Weekly", "Daily"),
         main = "Exposure to Cockroach in homes",
         size = 0.5, shape = 16,
         jittersize = 0.5, jittershape = 16, jittercol = "red")
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