This script is part of supporting materials, coming with the book of Borcard et al. 2011.

To import the function definition directly into R, use the following:

```
source
('http://www.davidzeleny.net/anadat-r/doku.php/en:numecolr:evplot?do=export_code&co
deblock=1')
```

evplot.r

```
# Plot eigenvalues and percentages of variation of an ordination object
# Kaiser rule and broken stick model
# Usage:
# evplot(ev)
# where ev is a vector of eigenvalues

# License: GPL-2
# Author: Francois Gillet, 25 August 2012

evplot <- function(ev)
{
    # Broken stick model (MacArthur 1957)
    n <- length(ev)
    bsm <- data.frame(j=seq(1:n), p=0)
    bsm$p[1] <- 1/n
    for (i in 2:n) bsm$p[i] <- bsm$p[i-1] + (1/(n + 1 - i))
    bsm$p <- 100*bsm$p/n
    # Plot eigenvalues and % of variation for each axis
    op <- par(mfrow=c(2,1))
    barplot(ev, main="Eigenvalues", col="bisque", las=2)
    abline(h=mean(ev), col="red")
    legend("topright", "Average eigenvalue", lwd=1, col=2, bty="n")
    barplot(t(cbind(100*ev/sum(ev), bsm$p[n:1])), beside=TRUE,
        main="% variation", col=c("bisque",2), las=2)
    legend("topright", c("% eigenvalue", "Broken stick model"),
        pch=15, col=c("bisque",2), bty="n")
    par(op)
}
```

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https://anadat-r.davidzeleny.net/ - **Analysis of community ecology data in R**

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