

Plotting Idiograms

Rob Scharpf

May 2, 2019

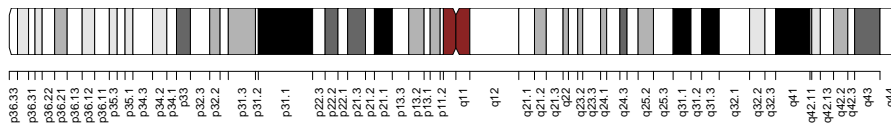
This package is no longer actively developed and maintained largely for historical reasons.

1 Simple Usage

```
> library(SNPchip)
```

Plot an idiogram for chromosome 1 with labels for the bands on the x-axis.

```
> plotIdiogram("1", build="hg19", cex=0.8)
```



Suppressing labels:

```
> plotIdiogram("1", build="hg19", cex=0.8, label.cytoband=FALSE)
```



With user-defined y-axis limits and y-coordinates for the idiogram:

```
> plotIdiogram("1", build="hg19", cex=0.8, label.cytoband=FALSE, ylim=c(0,1), cytoband.ycoords=c(0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0))
```



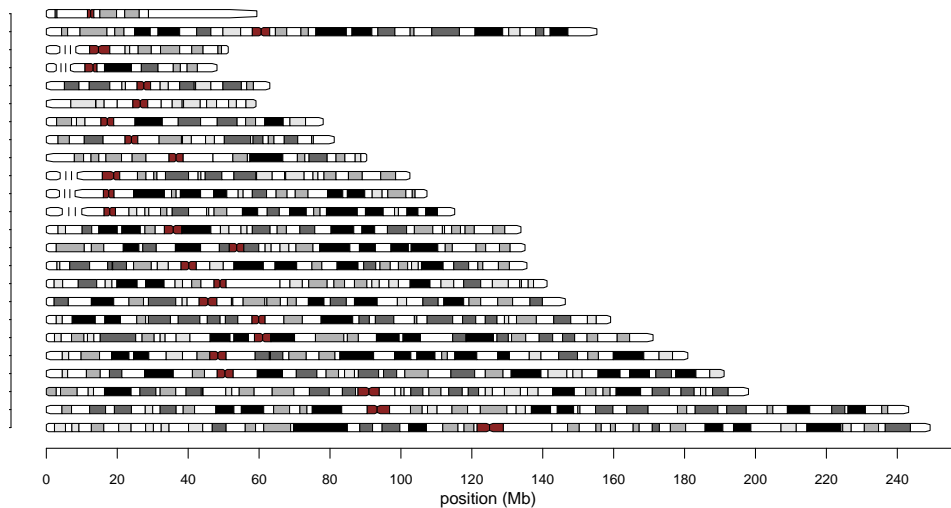
Plot an idiogram for all chromosomes.

```
> library(oligoClasses)
> sl <- getSequenceLengths("hg19")[c(paste("chr", 1:22, sep=""), "chrX", "chrY")]
> ybottom <- seq(0, 1, length.out=length(sl)) - 0.01
> ytop <- seq(0, 1, length.out=length(sl)) + 0.01
> for(i in seq_along(sl)){
+   chr <- names(sl)[i]
+   if(i == 1){
+     plotIdiogram("1", build="hg19", cex=0.8, label.cytoband=FALSE, ylim=c(-0.05,1.05), cytoband.ycoords=c(0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0))
+   }
```

```

+             xlim=c(0, max(sl)))
+         }
+         if(i > 1){
+             plotIdiogram(names(sl)[i], build="hg19", cex=0.8, label.cytoband=FALSE, cytoband.ycoord=
+         }
+     }
> axis(1, at=pretty(c(0, max(sl)), n=10), labels=pretty(c(0, max(sl)), n=10)/1e6, cex.axis=0.8)
> mtext("position (Mb)", 1, line=2)
> par(las=1)
> axis(2, at=ybottom+0.01, names(sl), cex.axis=0.6)

```



2 Session Information

The version number of R and packages loaded for generating the vignette were:

- R version 3.6.0 (2019-04-26), x86_64-apple-darwin15.6.0
- Locale: C/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
- Running under: OS X El Capitan 10.11.6
- Matrix products: default
- BLAS: /Library/Frameworks/R.framework/Versions/3.6/Resources/lib/libRblas.0.dylib
- LAPACK: /Library/Frameworks/R.framework/Versions/3.6/Resources/lib/libRlapack.dylib
- Base packages: base, datasets, grDevices, graphics, methods, stats, utils
- Other packages: SNPchip 2.30.0, oligoClasses 1.46.0
- Loaded via a namespace (and not attached): Biobase 2.44.0, BiocGenerics 0.30.0, BiocManager 1.30.4, BiocParallel 1.18.0, Biostrings 2.52.0, DBI 1.0.0, DelayedArray 0.10.0, GenomeInfoDb 1.20.0, GenomeInfoDbData 1.2.1, GenomicRanges 1.36.0, IRanges 2.18.0, Matrix 1.2-17, RCurl 1.95-4.12, S4Vectors 0.22.0, SummarizedExperiment 1.14.0, XVector 0.24.0, affyio 1.54.0, bit 1.1-14, bitops 1.0-6, codetools 0.2-16, compiler 3.6.0, ff 2.2-14, foreach 1.4.4, grid 3.6.0, iterators 1.0.10, lattice 0.20-38, matrixStats 0.54.0, parallel 3.6.0, stats4 3.6.0, tools 3.6.0, zlibbioc 1.30.0