

Last login: Tue Sep 18 12:34:42 on ttys000
Ruans-MacBook-Air:Downloads ruanvanmazijk\$ R

R version 3.5.0 (2018-04-23) -- "Joy in Playing"
Copyright (C) 2018 The R Foundation for Statistical Computing
Platform: x86_64-apple-darwin15.6.0 (64-bit)

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Type 'license()' or 'licence()' for distribution details.

Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

```
> list.files()
[1] "box-label_RVM.gdoc"
[2] "Cape-vs-SWA"
[3] "chromosomes.gdraw"
[4] "co-existence.gdraw"
[5] "GCFRSoils-notes.gsheat"
[6] "GCFRSoils-sheet.gsheat"
[7] "HOU-KOG-candidate-species-guide.gdoc"
[8] "insertion-deletion.gdraw"
[9] "MSc_comparative-morpho_notes.gsheat"
[10] "MSc_comparative-morpho_schoenus-compar-pictus_detail.gdoc"
[11] "MSc_comparative-morpho_schoenus-compar-pictus.gdoc"
[12] "MSc_comparative-morpho_schoenus-cuspidatus-et-al.gdoc"
[13] "MSc_comparative-morpho_schoenus-nigricans-epischoenus.gdoc"
[14] "MSc_comparative-morpho_tetraria-spp.gdoc"
[15] "MSc_progress-meeting-16-apr-2018-phylogeny.gdraw"
[16] "MSc_schoeneae-dry-specimens_work-flow_rvm.gsheat"
[17] "MSc-genome-ecophys"
[18] "Pint of Science Festival 14-16 May 2018.gdoc"
[19] "RvanMazijk_Muasya-discussion-group-MSc-talk-slides.gslides"
[20] "RvanMazijk_Pint-of-Science-talk-slides.gslides"
[21] "RvanMazijk_SAAB-AMA-SASSB-Cape-vs-SWA-slides.gslides"
[22] "RvanMazijk_SAAB-AMA-SASSB-talk-slides.gslides"
[23] "schoeneae-veld-and-flora_introduction_RVM.gdoc"
[24] "undergrad-literature"
[25] "Waypoints_03-SEP-18.gpx"
[26] "Waypoints_18-AUG-18.gpx"
[27] "weekly-maintenance-instructions_rvm.gdoc"
```

```
> list.files()
[1] "Cape-vs-SWA"                "Google docs emergency save"
[3] "MSc-genome-ecophys"         "undergrad-literature"
[5] "Waypoints_03-SEP-18.gpx"    "Waypoints_18-AUG-18.gpx"
> library(plotKML)
Error in library(plotKML) : there is no package called 'plotKML'
> install.packages("plotKML")
--- Please select a CRAN mirror for use in this session ---
```

qq^[

also installing the dependencies 'checkmate', 'htmlwidgets', 'Formula', 'acepack', 'htmlTable', 'xts', 'intervals', 'Hmisc', 'FNN', 'spData', 'e1071', 'spacetime', 'plotrix', 'dismo', 'aqp', 'pixmap', 'colorRamps', 'gstat', 'RSAGA', 'classInt'

There are binary versions available but the source versions are later:

	binary	source	needs_compilation
xts	0.10-2	0.11-1	TRUE
spData	0.2.9.3	0.2.9.4	FALSE

Do you want to install from sources the package which needs compilation? (Yes/no/cancel)
trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/checkmate_1.8.5.tgz'
Content type 'application/x-gzip' length 608941 bytes (594 KB)
=====
downloaded 594 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/htmlwidgets_1.2.tgz'

Content type 'application/x-gzip' length 792122 bytes (773 KB)
=====
downloaded 773 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/Formula_1.2-3.tgz'
Content type 'application/x-gzip' length 177499 bytes (173 KB)
=====
downloaded 173 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/acepack_1.4.1.tgz'
Content type 'application/x-gzip' length 81401 bytes (79 KB)
=====
downloaded 79 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/htmlTable_1.12.tgz'
Content type 'application/x-gzip' length 315098 bytes (307 KB)
=====
downloaded 307 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/intervals_0.15.1.tgz'
Content type 'application/x-gzip' length 753953 bytes (736 KB)
=====
downloaded 736 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/Hmisc_4.1-1.tgz'
Content type 'application/x-gzip' length 3007285 bytes (2.9 MB)
=====
downloaded 2.9 MB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/FNN_1.1.2.1.tgz'
Content type 'application/x-gzip' length 133959 bytes (130 KB)
=====
downloaded 130 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/e1071_1.7-0.tgz'
Content type 'application/x-gzip' length 891425 bytes (870 KB)
=====
downloaded 870 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/spacetime_1.2-2.tgz'
Content type 'application/x-gzip' length 3300296 bytes (3.1 MB)
=====
downloaded 3.1 MB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/plotrix_3.7-3.tgz'
Content type 'application/x-gzip' length 1054697 bytes (1.0 MB)
=====
downloaded 1.0 MB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/dismo_1.1-4.tgz'
Content type 'application/x-gzip' length 2064612 bytes (2.0 MB)
=====
downloaded 2.0 MB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/aqp_1.16.tgz'
Content type 'application/x-gzip' length 1238785 bytes (1.2 MB)
=====
downloaded 1.2 MB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/pixmap_0.4-11.tgz'
Content type 'application/x-gzip' length 149742 bytes (146 KB)
=====
downloaded 146 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/colorRamps_2.3.tgz'
Content type 'application/x-gzip' length 27156 bytes (26 KB)
=====
downloaded 26 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/gstat_1.1-6.tgz'
Content type 'application/x-gzip' length 2991876 bytes (2.9 MB)
=====
downloaded 2.9 MB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/RSAGA_1.2.0.tgz'
Content type 'application/x-gzip' length 1916988 bytes (1.8 MB)
=====

downloaded 1.8 MB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/classInt_0.2-3.tgz'
Content type 'application/x-gzip' length 65918 bytes (64 KB)

downloaded 64 KB

trying URL 'https://cloud.r-project.org/bin/macosx/el-capitan/contrib/3.5/plotKML_0.5-8.tgz'
Content type 'application/x-gzip' length 3244572 bytes (3.1 MB)

downloaded 3.1 MB

The downloaded binary packages are in

/var/folders/m1/yz8yzvt936x183jq_ykxmb80000gn/T//RtmpPm3C24/downloaded_packages

installing the source packages 'xts', 'spData'

trying URL 'https://cloud.r-project.org/src/contrib/xts_0.11-1.tar.gz'
Content type 'application/x-gzip' length 535201 bytes (522 KB)

downloaded 522 KB

trying URL 'https://cloud.r-project.org/src/contrib/spData_0.2.9.4.tar.gz'
Content type 'application/x-gzip' length 3486597 bytes (3.3 MB)

downloaded 3.3 MB

* installing *source* package 'xts' ...

** package 'xts' successfully unpacked and MD5 sums checked

** libs

```
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c add_class.c -o add_class.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c any.c -o any.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c attr.c -o attr.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c binsearch.c -o binsearch.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c coredata.c -o coredata.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c diff.c -o diff.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c dimnames.c -o dimnames.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c endpoints.c -o endpoints.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c extract_col.c -o extract_col.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c init.c -o init.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c isOrdered.c -o isOrdered.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c isXts.c -o isXts.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c merge.c -o merge.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c na.c -o na.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c period_apply.c -o period_apply.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c period_arithmetic.c -o period_arithmetic.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c period_quantile.c -o period_quantile.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c rbind.c -o rbind.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c rollfun.c -o rollfun.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c runSum.c -o runSum.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c startofyear.c -o startofyear.o
```

```

clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework/
k/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c subset.c -o subset.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework
k/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c subset.old.c -o subset.old.
o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework
k/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c toperiod.c -o toperiod.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework
k/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c totalcols.c -o totalcols.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework
k/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c tryXts.c -o tryXts.o
clang -I"/Library/Frameworks/R.framework/Resources/include" -DNDEBUG -I../inst/include -I"/Library/Frameworks/R.framework
k/Versions/3.5/Resources/library/zoo/include" -I/usr/local/include -fPIC -Wall -g -O2 -c unique.time.c -o unique.tim
e.o
clang -dynamiclib -Wl,-headerpad_max_install_names -undefined dynamic_lookup -single_module -multiply_defined suppress -
L/Library/Frameworks/R.framework/Resources/lib -L/usr/local/lib -o xts.so add_class.o any.o attr.o binsearch.o coredat
.o diff.o dimnames.o endpoints.o extract_col.o init.o isOrdered.o isXts.o merge.o na.o period_apply.o period_arithmetic.o
period_quantile.o rbind.o rollfun.o runSum.o startofyear.o subset.o subset.old.o toperiod.o totalcols.o tryXts.o unique
.time.o -F/Library/Frameworks/R.framework/.. -framework R -Wl,-framework -Wl,CoreFoundation
installing to /Library/Frameworks/R.framework/Versions/3.5/Resources/library/xts/libs
** R
** data
** inst
** byte-compile and prepare package for lazy loading
** help
*** installing help indices
** building package indices
** installing vignettes
** testing if installed package can be loaded
* DONE (xts)
* installing *source* package 'spData' ...
** package 'spData' successfully unpacked and MD5 sums checked
** R
** data
*** moving datasets to lazyload DB
** inst
** byte-compile and prepare package for lazy loading
** help
*** installing help indices
** building package indices
** testing if installed package can be loaded
* DONE (spData)

```

The downloaded source packages are in
 ‘/private/var/folders/m1/yz8yzt936x183jq_ykxmb80000gn/T/RtmpPm3C24/downloaded_packages’

```

> qq
Error: object 'qq' not found
> library(plotKML)
plotKML version 0.5-8 (2017-05-12)
URL: http://plotkml.r-forge.r-project.org/
> (
+ )
Error: unexpected ')' in:
"("
)"
> list.files()
[1] "Cape-vs-SWA"           "Google docs emergency save"
[3] "MSc-genome-ecophys"    "undergrad-literature"
[5] "Waypoints_03-SEP-18.gpx" "Waypoints_18-AUG-18.gpx"
> waypoints_AUG_18 <- readGPX("Waypoints_18-AUG-18.gpx")
> waypoints_AUG_18
$metadata
NULL

$bounds
NULL

$waypoints
   lon   lat   ele   time   name   sym
1 19.15399 -34.19907 360.904694 2018-08-18T09:04:05Z HOUBR01 Flag, Blue
2 19.15410 -34.19906 362.764374 2018-08-18T09:09:24Z HOUBR02 Flag, Blue
3 19.15426 -34.19880 364.256409 2018-08-18T09:27:53Z HOUUST1 Flag, Blue
4 19.15422 -34.19879 367.311218 2018-08-18T09:31:17Z HOUUST2 Flag, Blue
5 19.15125 -34.19325 379.423218 2018-08-18T10:17:27Z HOUUST3 Flag, Blue
6 19.15122 -34.19330 373.108521 2018-08-18T10:22:15Z HOUUST4 Flag, Blue
7 19.15070 -34.19322 364.164703 2018-08-18T10:36:15Z HOU-S-UNKNOWN Flag, Blue
8 19.15367 -34.19837 364.784790 2018-08-18T11:18:58Z HOUCOM1 Flag, Blue

```

9	19.08044	-34.28547	407.356506	2018-08-18T13:00:50Z	018 Flag, Blue
10	19.07454	-34.28774	427.952057	2018-08-18T13:39:26Z	019 Flag, Blue

\$tracks
NULL

\$routes
NULL

```
> plot(waypoints_AUG_18p$waypoints)
Error in plot(waypoints_AUG_18p$waypoints) :
  object 'waypoints_AUG_18p' not found
> plot(waypoints_AUG_18$waypoints)
Error in plot.window(...) : need finite 'xlim' values
> plot(waypoints_AUG_18$waypoints[, c(1, 2)])
Error: unexpected '[' in "plot(waypoints_AUG_18$waypoints[, c(1, 2)]"
> plot(waypoints_AUG_18$waypoints[, c(1, 2)])
+ )
> cape <- readOGR("Cape-vs-SWA/data/derived-data/borders/GCFR_border")
Error in readOGR("Cape-vs-SWA/data/derived-data/borders/GCFR_border") :
  could not find function "readOGR"
> library(rgdal)
+ )
Loading required package: sp
rgdal: version: 1.3-2, (SVN revision 755)
Geospatial Data Abstraction Library extensions to R successfully loaded
Loaded GDAL runtime: GDAL 2.1.3, released 2017/20/01
Path to GDAL shared files: /Library/Frameworks/R.framework/Versions/3.5/Resources/library/rgdal/gdal
GDAL binary built with GEOS: FALSE
Loaded PROJ.4 runtime: Rel. 4.9.3, 15 August 2016, [PJ_VERSION: 493]
Path to PROJ.4 shared files: /Library/Frameworks/R.framework/Versions/3.5/Resources/library/rgdal/proj
Linking to sp version: 1.3-1
> cape <- readOGR("Cape-vs-SWA/data/derived-data/borders/GCFR_border")
OGR data source with driver: ESRI Shapefile
Source: "/Users/ruanvanmazijk/Downloads/Cape-vs-SWA/data/derived-data/borders/GCFR_border", layer: "LA_CURRENT"
with 2 features
It has 1 fields
> plot(cape)
> plot(waypoints_AUG_18$waypoints[, c(1, 2)])
+ )
> plot(cape)
> points(waypoints_AUG_18$waypoints[, c(1, 2)], add = TRUE)
> waypoints_AUG_18
$metadata
NULL
```

\$bounds
NULL

	lon	lat	ele	time	name	sym
1	19.15399	-34.19907	360.904694	2018-08-18T09:04:05Z	HOUBRO1	Flag, Blue
2	19.15410	-34.19906	362.764374	2018-08-18T09:09:24Z	HOUBRO2	Flag, Blue
3	19.15426	-34.19880	364.256409	2018-08-18T09:27:53Z	HOUUST1	Flag, Blue
4	19.15422	-34.19879	367.311218	2018-08-18T09:31:17Z	HOUUST2	Flag, Blue
5	19.15125	-34.19325	379.423218	2018-08-18T10:17:27Z	HOUUST3	Flag, Blue
6	19.15122	-34.19330	373.108521	2018-08-18T10:22:15Z	HOUUST4	Flag, Blue
7	19.15070	-34.19322	364.164703	2018-08-18T10:36:15Z	HOU-S-UNKNOWN	Flag, Blue
8	19.15367	-34.19837	364.784790	2018-08-18T11:18:58Z	HOUCOM1	Flag, Blue
9	19.08044	-34.28547	407.356506	2018-08-18T13:00:50Z	018	Flag, Blue
10	19.07454	-34.28774	427.952057	2018-08-18T13:39:26Z	019	Flag, Blue

\$tracks
NULL

\$routes
NULL

```
> plot(cape, xlim = c(min(waypoints_AUG_18$waypoints$lon), max(waypoints_AUG_18$waypoints$lon)))
> points(waypoints_AUG_18$waypoints[, c(1, 2)], add = TRUE)
> plot(cape, xlim = c(min(waypoints_AUG_18$waypoints$lon), max(waypoints_AUG_18$waypoints$lon)), ylim = c(min(waypoints_AUG_18$waypoints$lat), max(waypoints_AUG_18$waypoints$lat)))
>
> plot(cape, xlim = c(19, 19.25))
> plot(cape, xlim = c(19, 19.5), ylim = c(-34.5, -34))
+ )
> plot(cape, xlim = c(18, 20), ylim = c(-35, -34))
```

```
+ )
> plot(cape, xlim = c(18, 20), ylim = c(-35, -33))
> points(waypoints_AUG_18$waypoints[, c(1, 2)], add = TRUE)
> objc[6136]: Class FIFinderSyncExtensionHost is implemented in both /System/Library/PrivateFrameworks/FinderKit.framework/Versions/A/FinderKit (0x7fff97815c90) and /System/Library/PrivateFrameworks/FileProvider.framework/OverrideBundles/FinderSyncCollaborationFileProviderOverride.bundle/Contents/MacOS/FinderSyncCollaborationFileProviderOverride (0x108642cd8). One of the two will be used. Which one is undefined.
```