INTRODUCTION TO DISMO

CICGE
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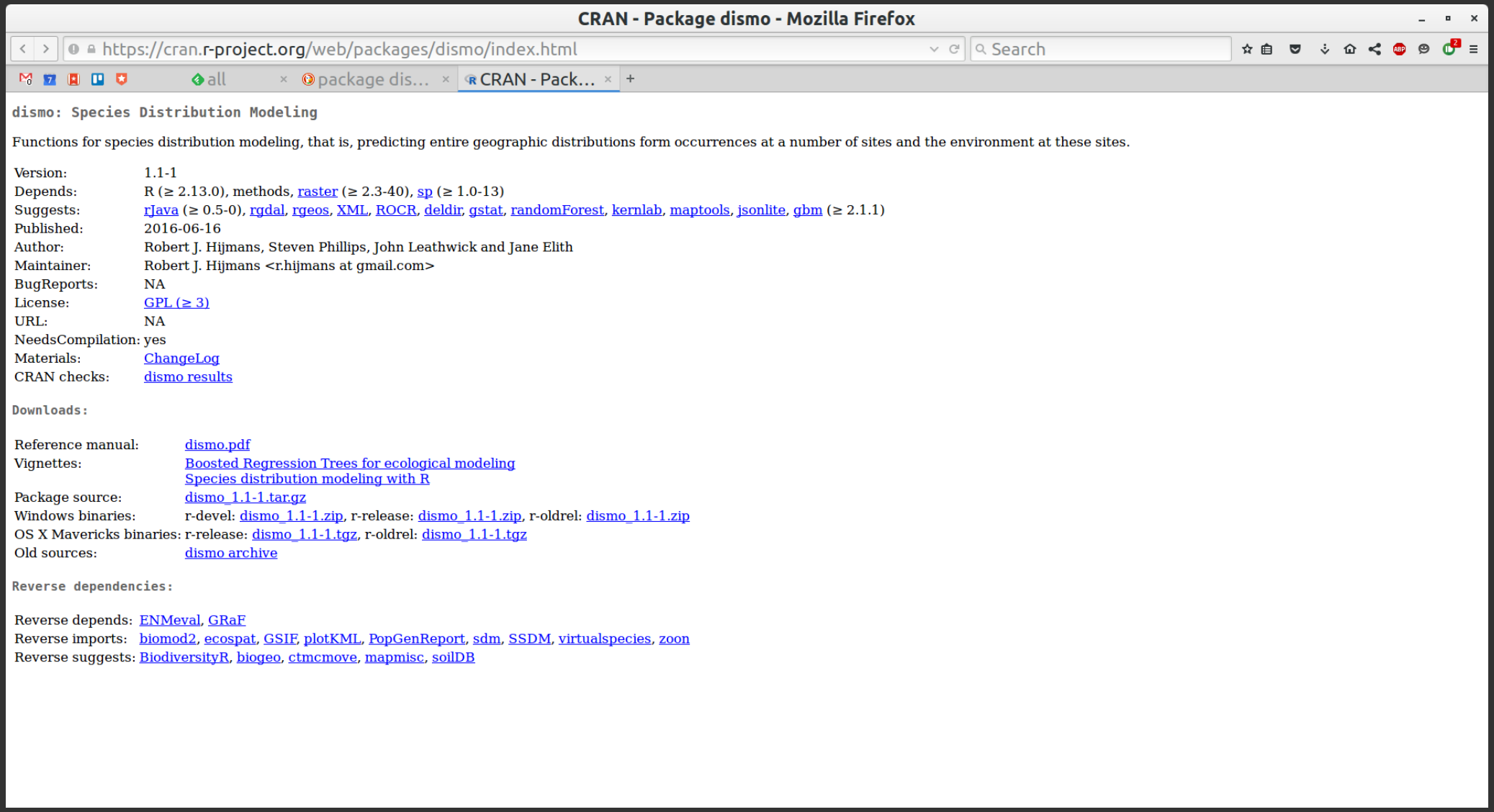
DISMO

- Software for species distribution models
- Written on R
- Cross-platform
- http://cran.r-project.org/web/packages/dismo/index.html
- Robert J. Hijmans, Steven Phillips, John Leathwick and Jane Elith
- Model evaluation (AUC)
- Multivariate environmental similarity surfaces (MESS)
- Niche equivalency and Niche overlap
- Background points
- K-fold sampling

DISMO: MODELLING METHODS

- Bioclim
- Domain
- Mahalanobis model
- Convex hull model
- Circle hull model
- Rectangular hull model
- Voronoid hull model
- Geographic distance model
- Boosted Regresssion Trees
- Link to Maxent
- Mechanistic models


CRAN - Package dismo - Mozilla Firefox
https://cran.r-project.org/web/packages/dismo/index.html
Search
all
package dis...
CRAN - Pack...
dismo: Species Distribution Modeling
Functions for species distribution modeling, that is, predicting entire geographic distributions form occurrences at a number of sites and the environment at these sites.
Version: 1.1-1
Depends: R (≥ 2.13.0), methods, raster (≥ 2.3-40), sp (≥ 1.0-13)
Suggests: rJava (≥ 0.5-0), rgdal, rgeos, XML, ROCR, deldir, gstat, randomForest, kernlab, maptools, jsonlite, gbm (≥ 2.1.1)
Published: 2016-06-16
Author: Robert J. Hijmans, Steven Phillips, John Leathwick and Jane Elith
Maintainer: Robert J. Hijmans <r.hijmans at gmail.com>
BugReports: NA
License: GPL (≥ 3)
URL: NA
NeedsCompilation: yes
Materials: ChangeLog
CRAN checks: dismo results
Downloads:
Reference manual: dismo.pdf
Vignettes: Boosted Regression Trees for ecological modeling
Species distribution modeling with R
Package source: dismo_1.1-1.tar.gz
Windows binaries: r-devel: dismo_1.1-1.zip, r-release: dismo_1.1-1.zip, r-oldrel: dismo_1.1-1.zip
OS X Mavericks binaries: r-release: dismo_1.1-1.tgz, r-oldrel: dismo_1.1-1.tgz
Old sources: dismo archive
Reverse dependencies:
Reverse depends: ENMeval, GRaF
Reverse imports: biomod2, ecospat, GSIF, plotKML, PopGenReport, sdm, SSDM, virtualspecies, zoon
Reverse suggests: BiodiversityR, biogeo, ctmcmove, mapmisc, soilDB

DISMO PROCEDURE

- Load environmental data (as a stack of rasters)
- Calculate correlation among variables
- Load species data
- Split species records in training and testing data
- Format the data
- Define modelling options
- Compute the models
- Evaluate the models
- Spatialise the models (project them to current conditions)
- Obtain the threshold
- Calculate the threshold model
- Project the models in time and space

.TXT FILE

long	lat
-6.990315	38.60562
-6.162222	39.21908
-6.486737	39.85714
-9.183864	42.94672
-9.184132	43.03677
-9.061111	42.76675

QUESTIONS?