GIS in R Command Cheat Sheet

August 31, 2015

Installing

Update R to version > 3.1. On Windows:

- `install.packages(c(''sp'',''raster''))`
- `install.packages(''rgdal'')`

On OSX:

- `install.packages(c(''sp'',''raster''))`
- Download and install GDAL Complete
- Download rgdal package.
- Open .dmg file and place `rgdal_0.9-1.tgz` on desktop.
- Run `install.packages("~/Desktop/rgdal_0.9-1.tgz",repos=NULL)`

Creating Spatial Objects

POINTS:

Points: `SpatialPoints([ matrix of coordinates] )`

Points with DF: `SpatialPointsDataFrame([Spatial Points Obj] , [ DataFrame] )`

POLYGONS:

Polygon: `Polygon([matrix of coordinates of vertices])`

Collection of Polygons: `Polygons([list of Polygon Objs], [names for Polygons])`

Collection of SPATIAL Polygons: `SpatialPolygons([list of Polygons Objs], [names for Polygons])`

- *Spatial Polygons are Polygons with associated projection data*

Spatial Polygons with DF: `SpatialPolygonsDataFrame([SpatialPolygons Obj, dataframe])`