Maps in R

Drawing maps with data on them is a small component of a suite of approaches that span from analyses of ecological and environmental data with some spatial (geographical) component[1] to more formal analyses of spatial data (geostatistics)[2] to integration of GIS layers with R analyses (both ecological and geostatistical). We'll introduce some of the concepts with the simplest tasks–drawing a map and overlaying ("projecting") data onto the map using the `maps`, `mapdata`, and `mapproj` packages.

- **The maps package** provides both the data (vector geographical boundaries) and the functions for projecting those data to create maps. It is incredibly easy to use and quite flexible. To begin playing with it, follow the `HoR_maps.R` script. Expand your knowledge by reading through the documentation.
- **R and Google maps**. You can download Google maps and plot over them, all directly from within R! An example of this is given in the `HoR_maps.R` script. Download the documentation for more extensive use of this here.
- **R and GIS**. You can do a host of GIS-related things from within R. I give an example of loading in a shapefile and using some built-in functions to find out whether weather stations are on land or in the ocean in the `HoR_maps.R` script (Check here for a complete rundown).

[1] See the CRAN Environmetrics Task View
[2] See the CRAN Spatial Task View