Handling spatial data in R

An introduction course

Gothenburg Global Biodiversity
Centre - GGBC

Swedish LifeWatch

workshop material

Material available at

github.com/tobiashofmann88/workshops

--> ggbc_slw_neic/spatial_r_workshop

--> click on Clone or Download button

tutorials

- tutorials on GitHub page

- click on .ipynb file in browser

- start with intro_tutorial.ipynb

--> demo

additional data

- additional data on USB stick (circulating)

- required for section C of empirical data tutorial

- total storage requirement (GitHub data + USB-stick data): ~ **2.8GB**

Using R studio

- Demo

vector vs. raster data

vector data

- consists of sets of coordinate pairs (x, y)

- points, lines and polygons

- **points**: coordinate pair and associated variables, multipoint structures

- **lines**: ordered sets of coordinates

- **polygons**: closed polyline geometry (last coordinate pair coincides with the first pair)

raster data

- spatially continuous phenomena (e.g. elevation)

- divides the world into a grid of equally sized rectangles (cell or pixel)

- each cell has one or more values associated

plotting spatial data

- a *map* is special type of plot (like a scatter plot, barplot, etc.)

- convention: order of coordinates is longitude, latitude