# Introduction to spatial analyses





#### Schedule

• Monday. Introduction to spatial data in R (Søren + Heléne)

Tuesday. Handling data from large online databases (Søren + Heléne)

Wednesday. MCMCglmm (Ferran + Søren)

• Thursday. Spatial analyses in R (Søren + Heléne)

Friday: Excersises (Søren + Heléne)



## Zoom etiquette

- If your internet can handle it please keep cameras on.
- Please mute microphone when not speaking



# Daily Schedule

- 9.00-9.? Quick meeting generally with short lecture
- 9?-12 Independent work on tutorial
- 12-13 Lunch
- 13.00-13? Quick meeting
- 13?-15.45 Independent work on tutorial
- 15.45-16.00 Wrap up



## Who is who?

- Name
- Home country
- Quick summary of what you are working on
- Level of R experience
- Odd or fun fact about you





Centuries of hunting reduced the bear's range. Recent conservation efforts fostered some expansion near Yellowstone.

# Work at your own speed

- Some people are really fast on computers.
- Some are not.

 It is better to take it slow and learn someting than to rush through everything

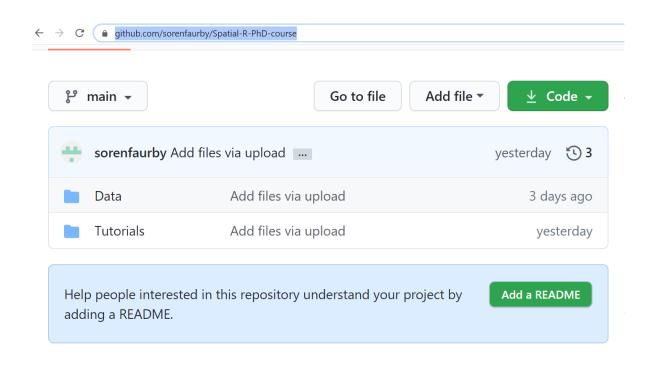


#### Data

#### **Tutorials:**

https://github.com/sorenfaurby/Spatial-R-PhD-course/

Download everything after clicking on the green Code field



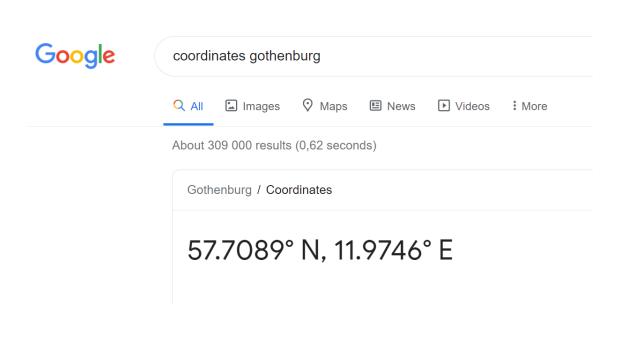


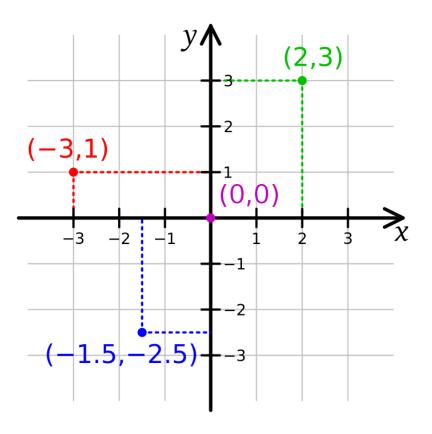






# Spatial orientation





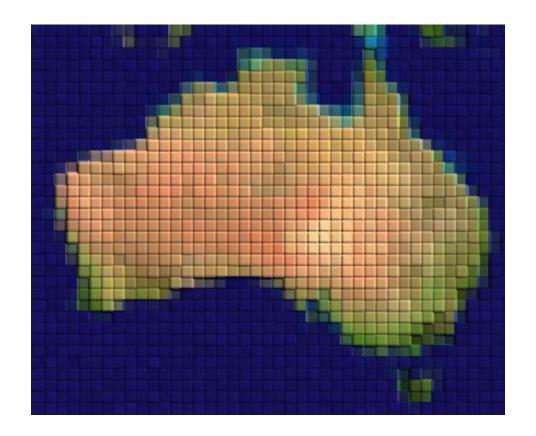
# Datatype: Polygon



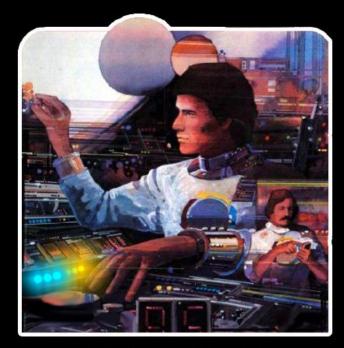


### Datatype: Rasters

- Conceptually think of an aeral photo
- Each pixel has
  - Dimensions (X and Y axis)
  - Midpoint coordinates
  - Color



# THE TWO STATES OF EVERY PROGRAMMER



I AM A GOD.



I HAVE NO IDEA WHAT I'M DOING.

Susprueh3d