# Reforestation Prioritization Final Project Presentation

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# Recap of project goals/motivation

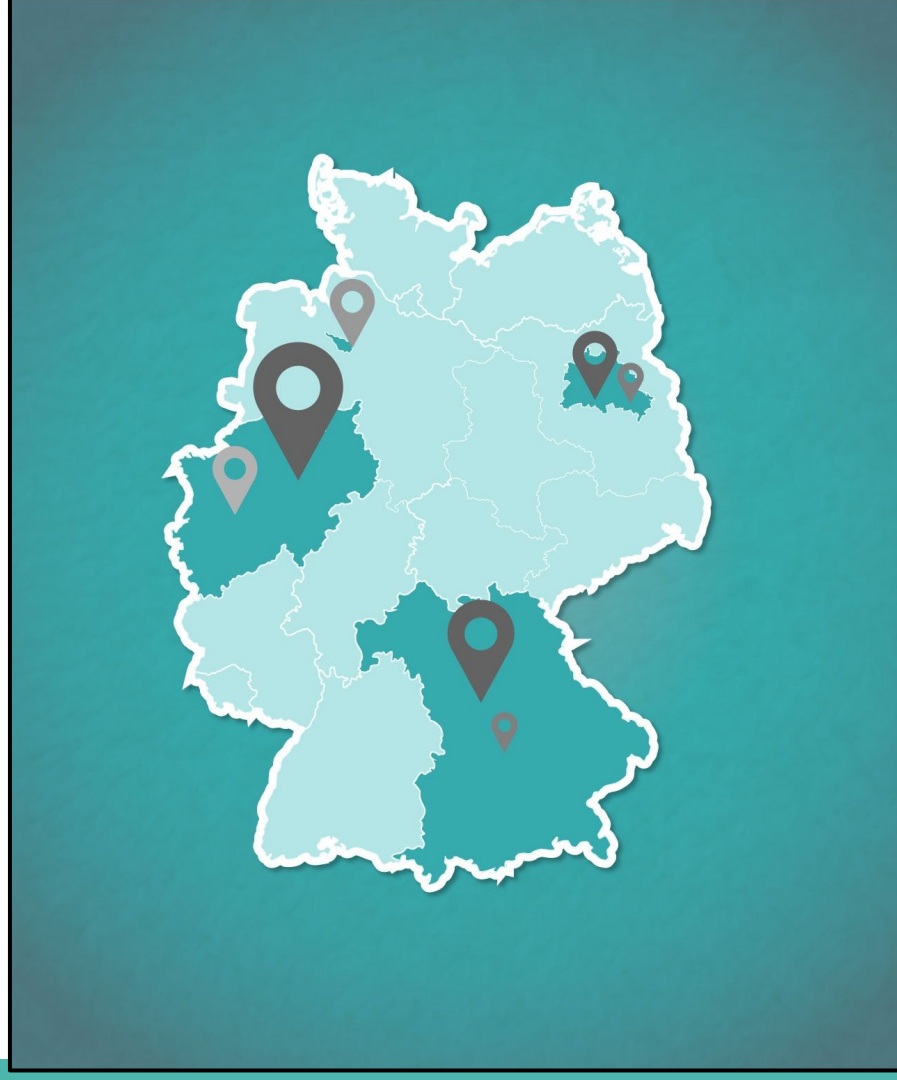
- Create a tool to prioritize sites for reforestation
- Optimize for both areas of biodiversity priority and places with high levels of landholder support

# Relevance/importance

- Forty seven countries have together committed to restore 350 million hectares of land by 2030
- But where this will happen and why are less clear

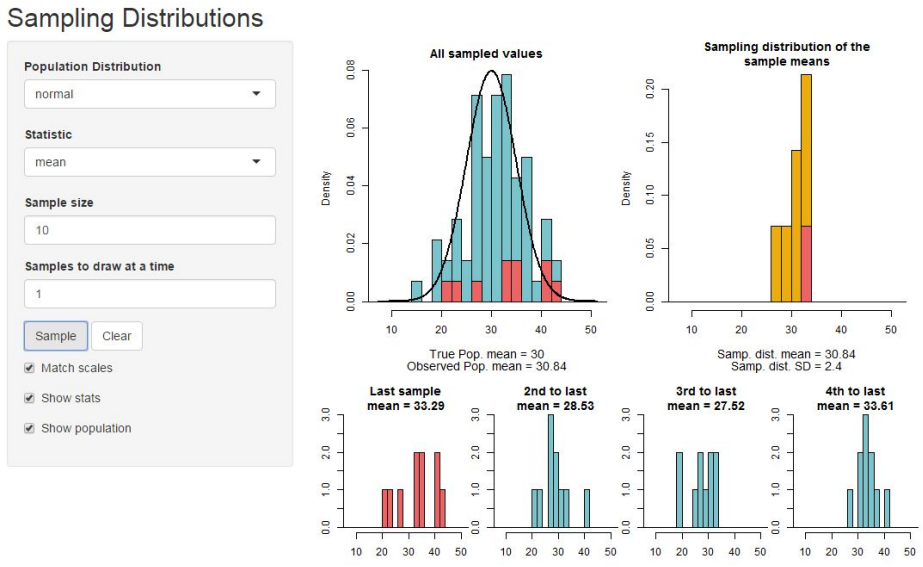
# Approach/methods used

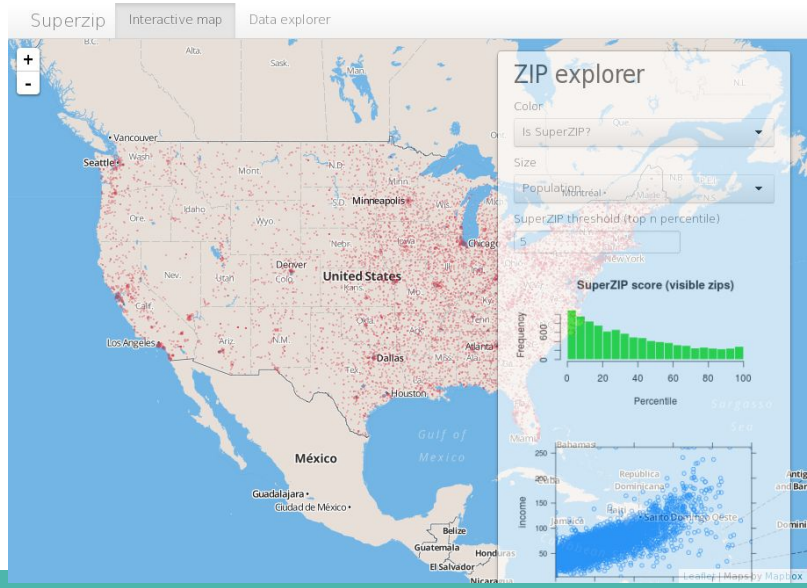
- **Step 1:** Compile biodiversity data (source: Strassburg et al. 2019)
- **Step 2:** Learn how to use RShiny and Leaflet
- **Step 3:** Map and continue to revise!



# About RShiny

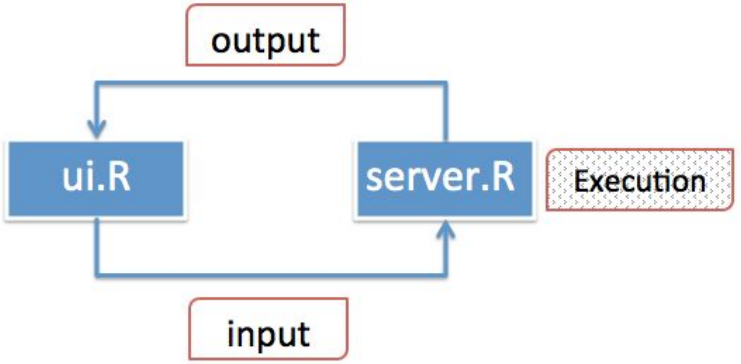
- Combine the computational power of R with the interactivity of the internet
- You can make plots reactive using a ‘render’ function

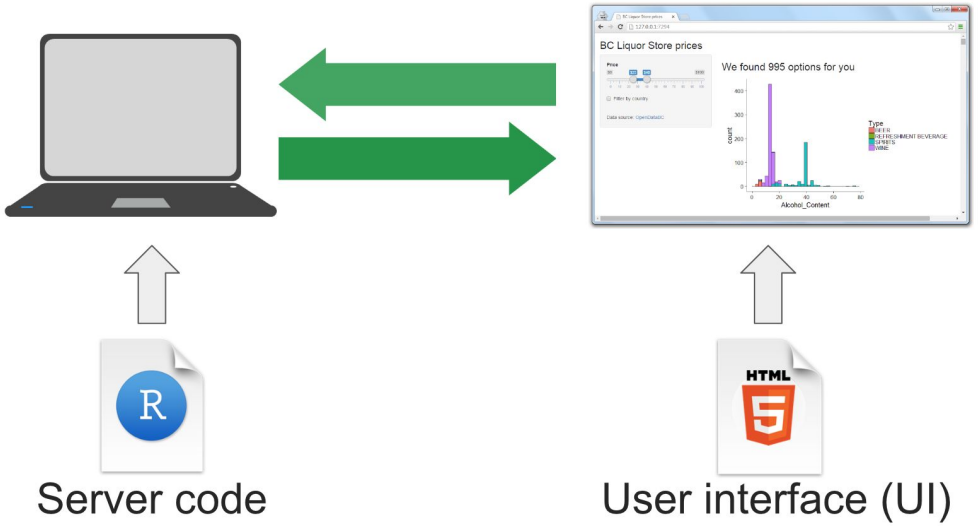


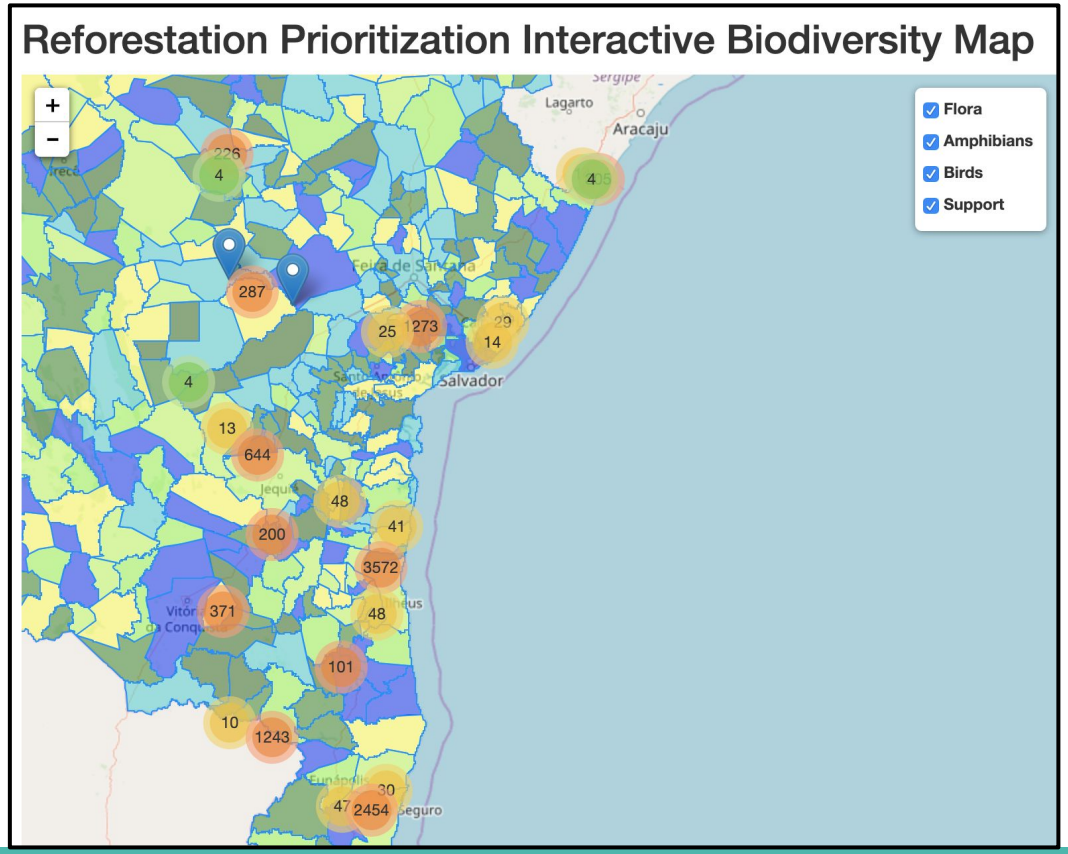
# RShiny Components

- Two components:
  - User interface
  - Server script



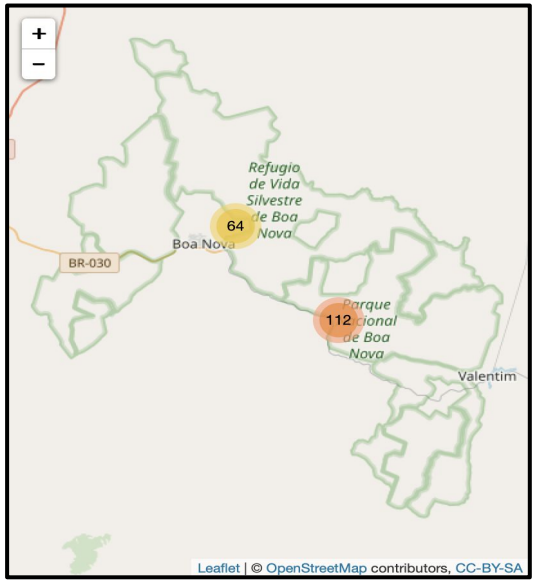



# The tool!

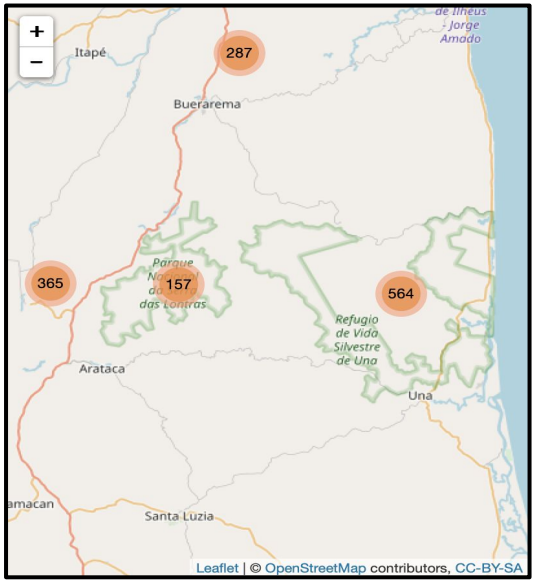

Reforestation Prioritization Interactive Biodiversity Map
Flora
Amphibians
Birds
Support
Lagarto
Aracaju
Salvador
4
287
25
273
14
4
13
644
48
200
41
3572
371
48
101
10
1243
47
2454

# Results and Conclusions

- Areas of biodiversity hotspot are different depending on species
- Perhaps clustering markers are not the best way to represent biodiversity data



Hotspot for birds



Hotspot for plants/vegetation

# Implications of my work/next steps

- Importance to Brazilian collaborators

**Next steps:**

- Add a ‘searchable’ drop down section to zoom in on a particular municipality or species
- Create different scenarios based on optimizing the various spatial layers
- Receive feedback from you and collaborators on what might make this tool more useful
- Collect social data to inform the social layer

# Suggestions?