R Group Day 1

* Examples of things you can do in R
  + Manipulate databases
  + Manipulate spatial files
  + Sample your study area
  + Run survival analysis in RMark
  + Run analysis in JAGS
  + RMarkdown
* Where things are
  + R
  + Packages: .libPaths()
  + Your scripts
* What RStudio looks like
  + Console – for running things, type here if you don’t care about saving that calculation
  + Script – your code, so you can go back and write up a methods section
  + Environment – your objects (anything you create and assign with a <- )
  + Plots and help
* What things are
  + Functions (from Base R, from packages)(end in parentheses, take arguments)
  + Vectors
* Troubleshooting
  + Warnings vs. errors
  + Google your error message
  + Error: object 'a' not found
  + Error: unexpected ')' in "head(gmus))"
  + Error: unexpected '}' in " }"
  + Reading a help file
* Saving things
  + Plots: export
  + Scripts: save/save as
  + RData: save()
  + Shapefiles: rgdal::writeOGR()
  + Csvs: write.csv(), write.table()
  + Workspace: obnoxious. Bad habit.
  + RHistory: also lame and useless.
* Resources for beginning
  + Data Camp intro R series <https://www.datacamp.com/courses/free-introduction-to-r>
  + Ideas for other trainings <http://www.skilledup.com/articles/5-free-courses-learning-r-programming>