Intro to R and Open Science Practices for Biologists Workshop

مقدمة في لغة الأر وممارسات العلوم المفتوحة لعلماء الأحياء

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What is ggplot2?

- *ggplot2* is a plotting package that makes it simple to create complex plots from data in a data frame.

- The *gg* in "ggplot" stands for "Grammar of Graphics," which is an elegant yet powerful way to describe the making of scientific plots.

What is ggplot2?

- In short, the grammar of graphics breaks down every plot into a few components, namely, a dataset, a set of geoms (visual marks that represent the data points), and a coordinate system.

- graphics are built step by step by adding new elements.
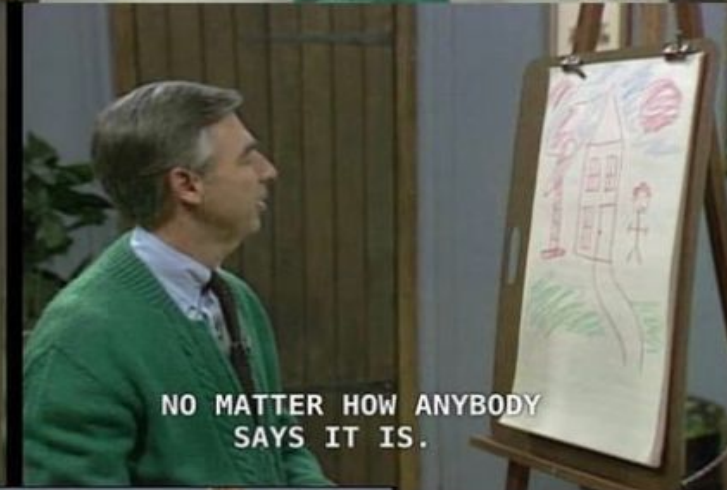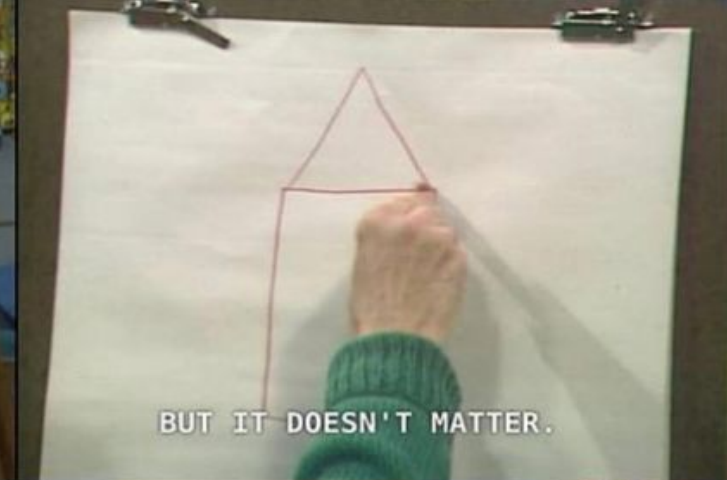
Here's the grammar (in brief…)

- ***1. Data*** - without data, you don't have a plot!

- ***2. Mapping*** - linking variables to graphical properties.

- ***3. Coordinates*** - define physical mapping.

- ***4. Geometries*** - interpret aesthetics as graphical representations.

- ***5. Facets*** - split plot into panels.
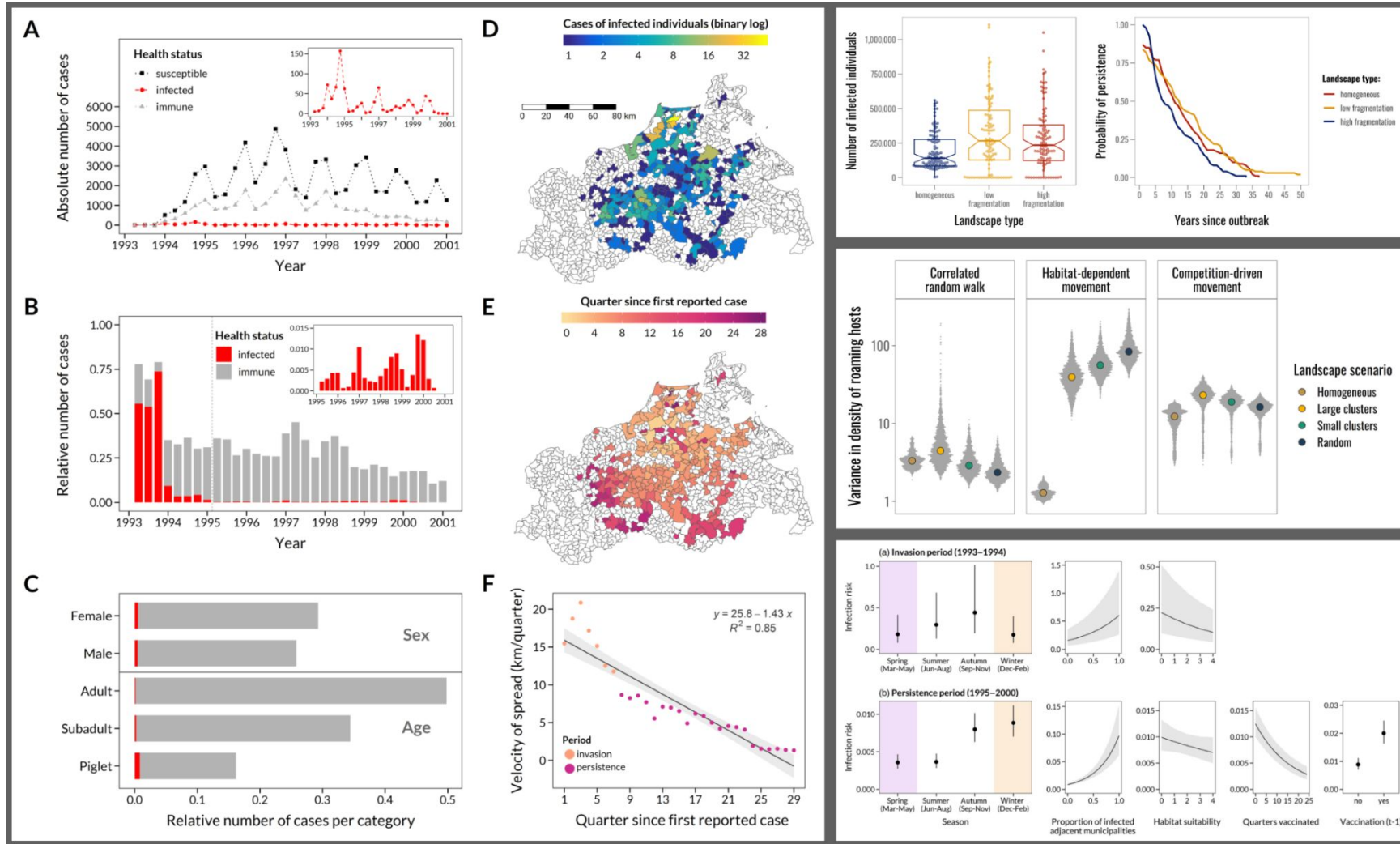
- ***6. Theme*** - what does your plot look like?.

My advice…

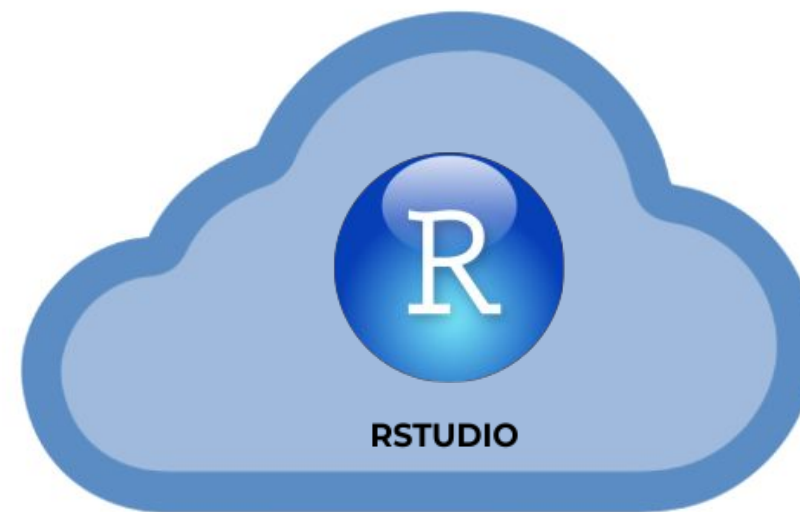*Find data you're interested in.*

*Find code for plots you like,
then **experiment**.*

If you can imagine it, you can plot it!!!

https://r-graph-gallery.com/

Now let's login
to Rstudio Cloud

https://rstudio.cloud/