

# Learning R

## Session 2: Creating graphical plots with R

DR EDMUND RYAN



# Overview of this R Course

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1. Introduction to R (session 1)
2. Creating graphical plots with R (session 2)

## Task 1

3. Correlation and Regression with R (session 3)
4. Creating a model with R using For loops and if-else statements (session 4)

## Task 2

5. Hypothesis testing with R (session 5)
6. Using R packages to solve problems (session 6)

## Task 3

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Task 1

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5. Hypothesis testing with R (session 5)

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Task 3

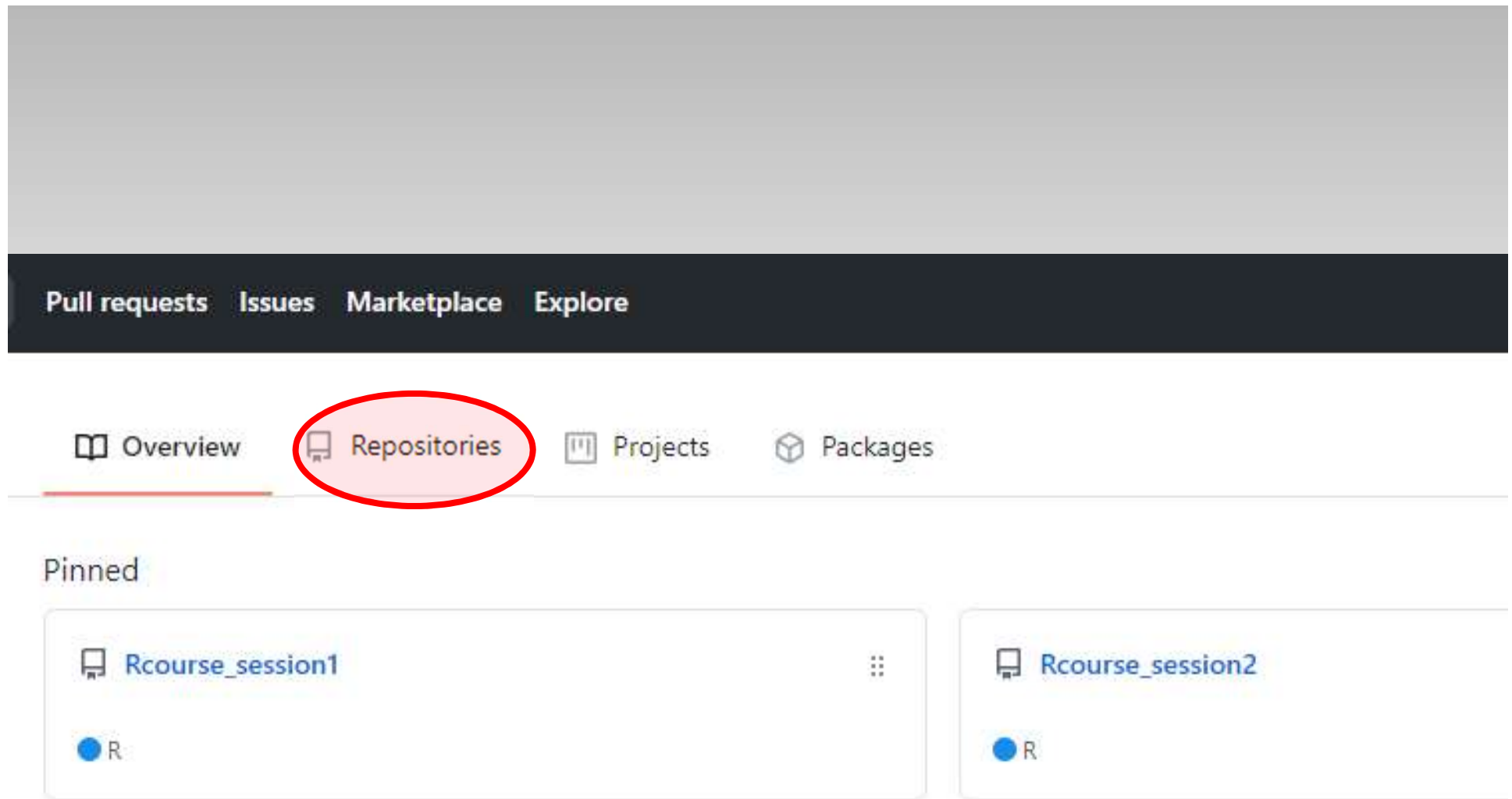
# All R code & data files are on Github

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<https://github.com/edmundryan>

[github.com/edmundryan](https://github.com/edmundryan)

The screenshot shows the GitHub profile page for user **edmundryan**. The browser address bar displays `github.com/edmundryan`, with a blue arrow pointing to it from the URL above. The page header includes navigation links: **Pull requests**, **Issues**, **Marketplace**, and **Explore**. The profile section on the left features a large pink 'D' avatar, the username **edmundryan**, an **Edit profile** button, and statistics: **0 followers**, **1 following**, and **0 stars**. It also notes the user **Joined 20 days ago**. The main content area has tabs for **Overview**, **Repositories**, **Projects**, and **Packages**. Under the **Pinned** section, two repositories are listed: **Rcourse\_session1** and **Rcourse\_session2**, both using the R programming language. Below this, a **10 contributions in the last year** section shows a calendar grid with green squares indicating contributions, primarily in June. A **Contribution activity** section for **June 2020** shows that the user **Created 7 commits in 2 repositories**: **edmundryan/Rcourse\_session1** (4 commits) and **edmundryan/Rcourse\_session2** (3 commits). A final activity item states **Created their first repository** on **Jun 27**. The page is set against a light gray background with a dark blue header.



**Click on 'Repositories' and then 'Rcourse\_session2'**  
**Or**  
**Find 'Rcourse\_session2' in the Pinned projects.**

The screenshot shows a web browser displaying the GitHub repository page for 'edmundryan/Rcourse\_session2'. The repository is on the 'master' branch. A commit by 'edmundryan' is shown with four files: 'Rcourse\_session2.pdf', 'Rcourse\_session2\_plot1.R', 'Rcourse\_session2\_plot2.R', and 'Rcourse\_session2\_plot3.R'. The 'Clone' button is open, showing options to clone with HTTPS or SSH, and buttons for 'Open in Desktop' and 'Download ZIP'. A red arrow points to the 'Download ZIP' button.

edmundryan/Rcourse\_session2

github.com/edmundryan/Rcourse\_session2

Search or jump to... Pull requests Issues Marketplace Explore

edmundryan / Rcourse\_session2

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Branch: master

Go to file Add file Clone

Clone with HTTPS ⓘ Use SSH

Use Git or checkout with SVN using the web URL.

https://github.com/edmundryan/Rcourse\_

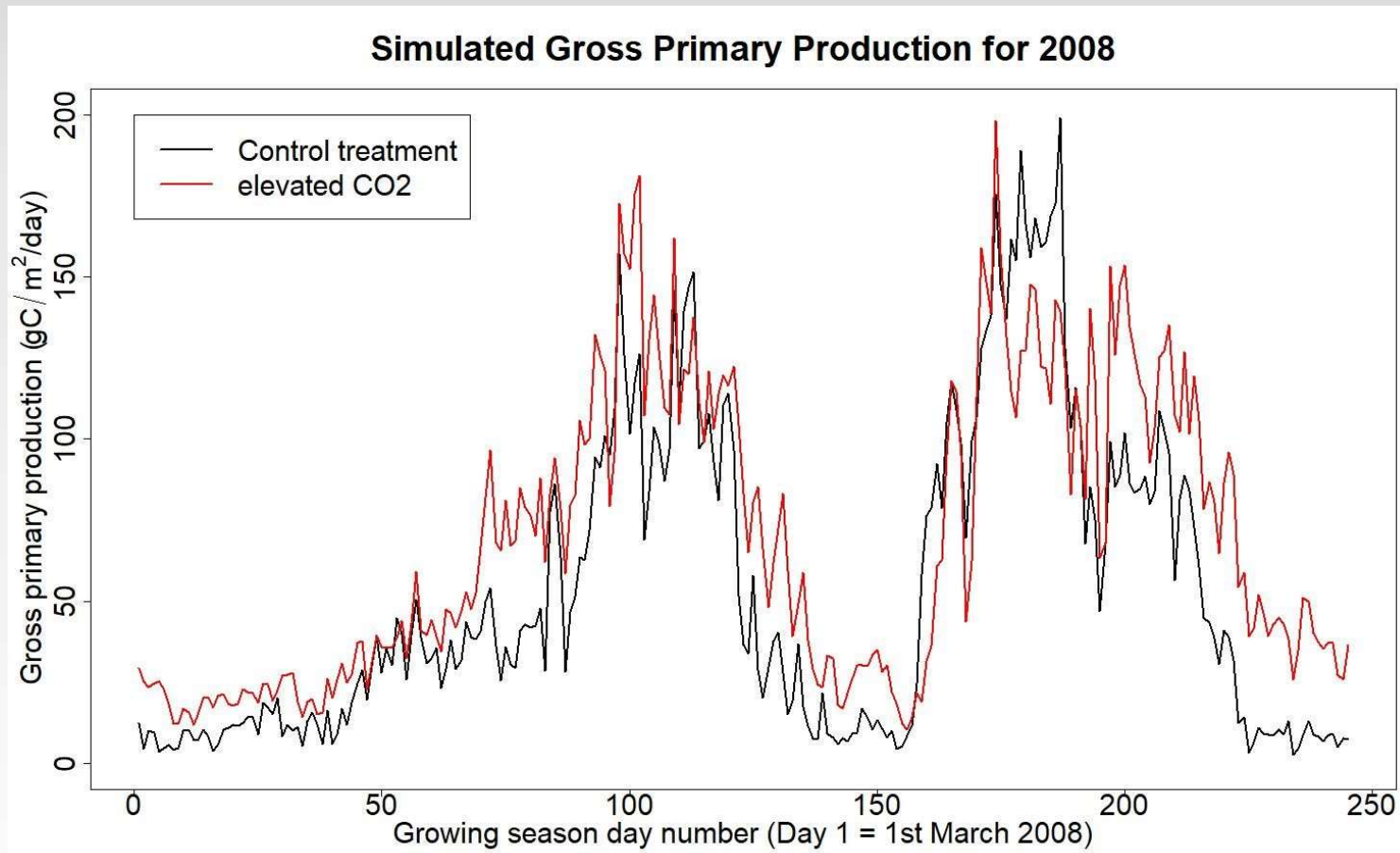
Open in Desktop Download ZIP

22 minutes ago

Help people interested in this repository understand your project by adding a README. Add a README

**To download a zip folder of all the files, click on the 'Clone' button and then 'Download ZIP'.**

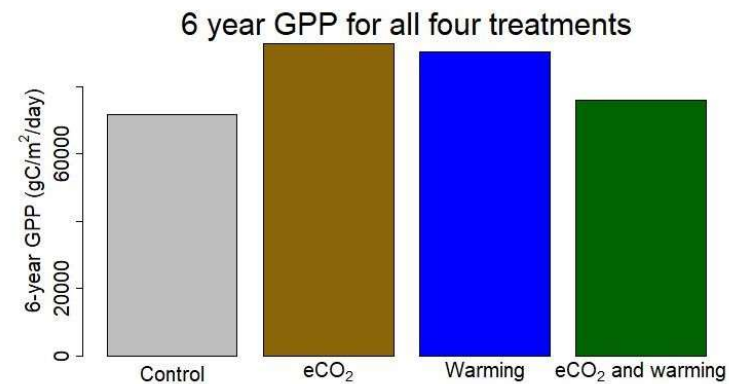
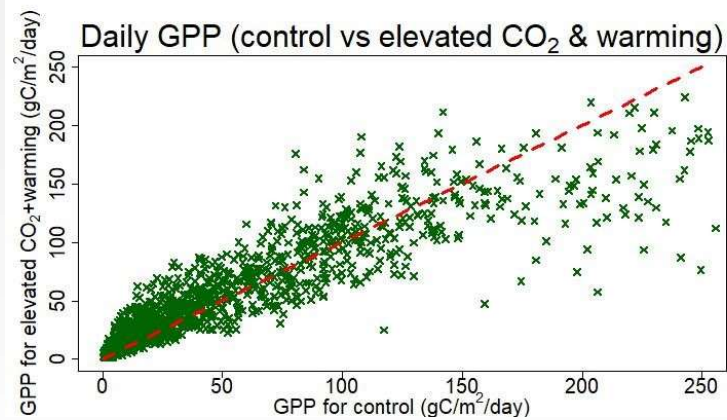
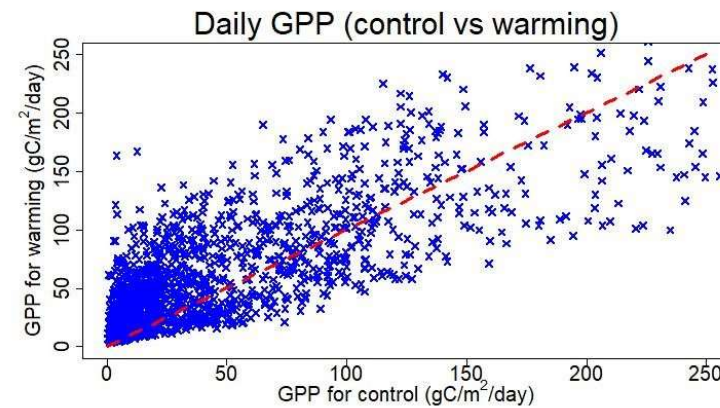
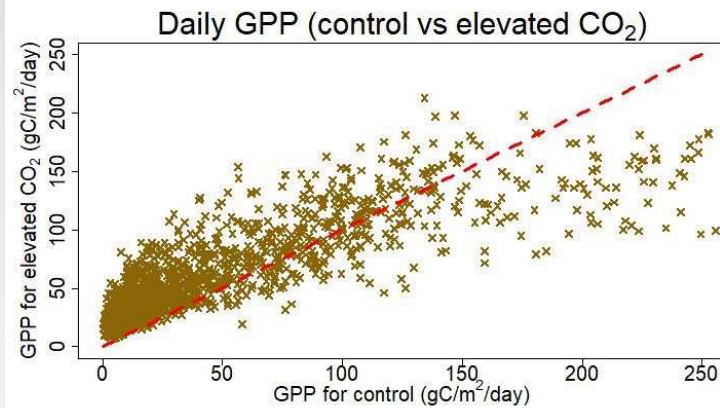
# First graphical plot





# Second graphical plot

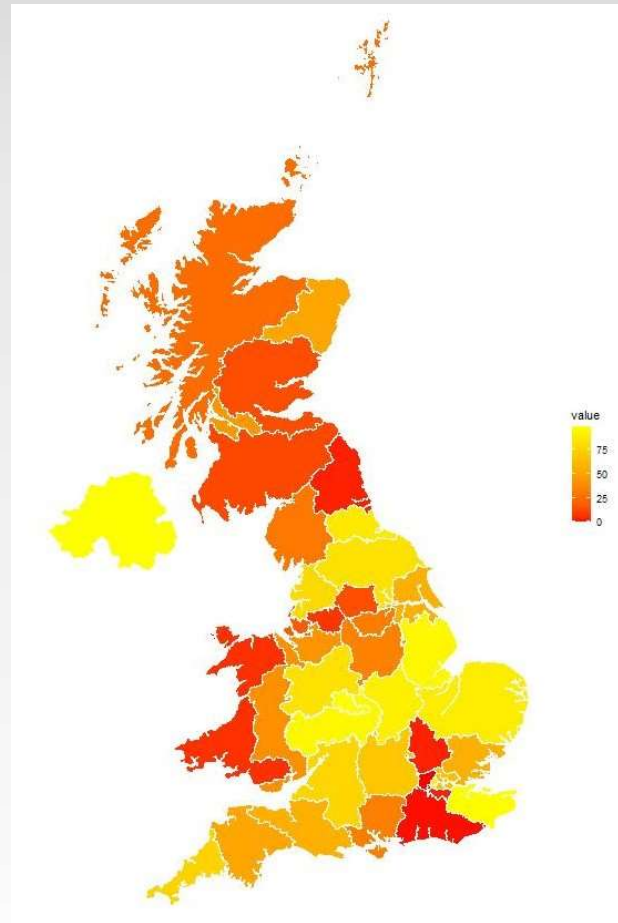
Gross primary production (GPP) on daily scale (panels 1-3) and six-year scale (panel 4)



# Third graphical plot

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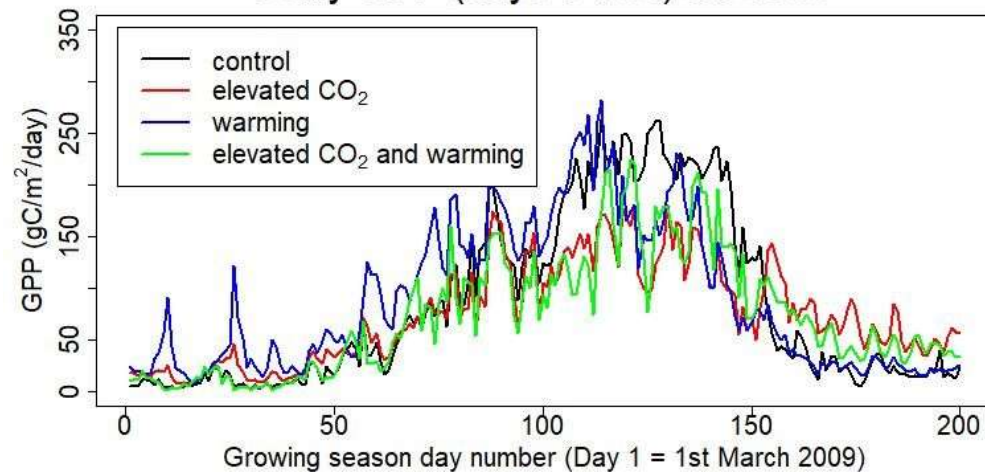
<https://datatricks.co.uk/creating-maps-in-r-2019>



# Task 1 – create the following plot:

Gross primary production (GPP) at daily and annual time scales

Daily GPP (days 1-200) for 2009



Annual GPP under elevated CO<sub>2</sub> for all years

