

Reproducible Documents with { rmarkdown }

Instructor: Selina Baldauf

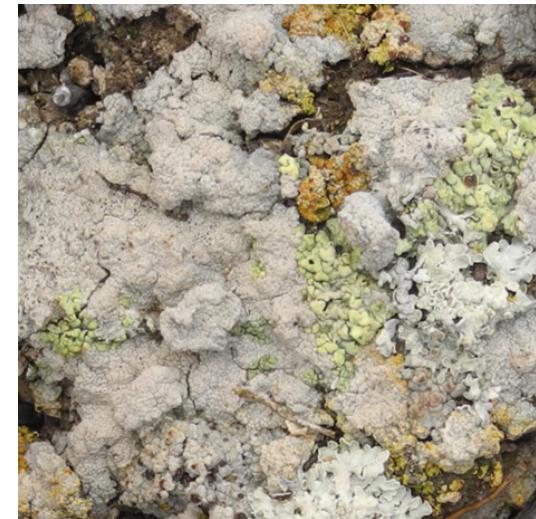
Freie Universität Berlin - Theoretical Ecology



2022-22-03 (updated: 2022-09-12)

Who am I?

- Scientific modeller with ecology background
- Working in the **theoretical ecology group** at Freie Universität
- PhD student at Freie Universität Berlin
 - Topic: Modelling the impact of biological soil crusts on dryland hydrology



Teaching

- Statistics with R for Biology Master students
- Workshop "Introduction to Data analysis with R"
- Workshops on R packages, R development, ...



The Workshop: Topics

- Day 1: Introduction to the R Markdown package
 - What is it?
 - What can you do with it?
 - Basic functionality
- Day 2: More advanced features and other document types
 - Citations
 - Additional output types
 - Format tables
- Day 3: Bring your own data
 - Optional



The Workshop: Schedule and Organization

 1 p.m. - 5 p.m.

 We will meet in the General meeting on Webex

Organization

- Input sessions
 - Presentation and demonstration of a topic
 - Some examples
- Tasks regarding this topic
 - In groups: You can start a meeting in the groups or use the chat
- Joint discussion of tasks and additional questions

The Workshop: Material

- All material can be found on the [workshop's website](#)
 - Presentations
 - Tasks
 - Solutions
 - Additional resources

Bring your own data

Learning by doing

- Create your own documents
 - Use methods learned in the course
 - Try something new
 - Create the document that you actually need or want to learn
- It is optional
 - Think about it and let me know tomorrow afternoon if you want to participate
 - If you already know: add your name to the **joint document**
- If you want to try something specific: Let me know and I can check for resources/packages/examples etc. before

Before we get started I

Any feedback and questions are very welcome.

I am curious to know

- What you liked/disliked
- If the time was enough for the tasks
- If you missed some topics
- ...

Before we get started II

I assume that you already know things like:

- Creating new projects or documents in RStudio
- Basic functionality of RStudio e.g. Console vs. Script, etc.
- Basics of R: concept of variables, functions, packages, ...
- I will use some code examples with functions from the `tidyverse` packages (`ggplot2`, `dplyr`)

We probably all have very different R skills and levels in the group, so **please ask if anything needs more explanation**

- There are always some extra tasks for the fast ones that you can but don't have to do

Before we get started III

Did anyone have problems installing the R Markdown?

Feedback

Please take 5 mins to complete the feedback survey for the Graduate center (don't use Internet Explorer)

<https://votingo.cedis.fu-berlin.de/survey/P93BAL>

Please take another 5 mins to complete my more specific survey to further improve the course

<https://forms.gle/rpMtG843dT9pSNmu7>

Feedback and Questions

- Any other feedback/comments/questions from your side?

The End

Thanks a lot for participating!



Artwork by Allison Horst