

Sistemes Dinàmics en Ecologia

Camille Minaudo

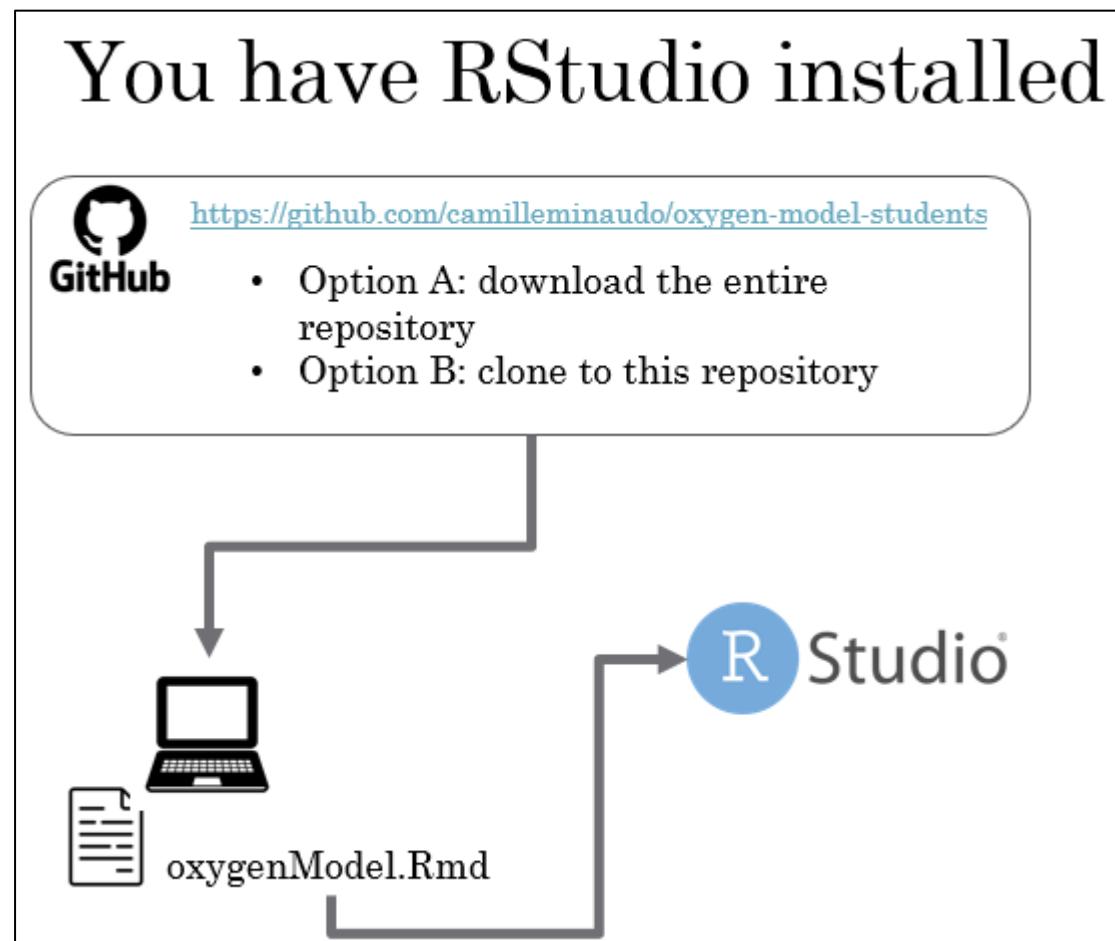
A. Building the model, step by step

All you need is to open the file oxygenModel.Rmd in RStudio.

Either:

- you have RStudio already installed in your machine, in that case you can simply download (or “git clone”) to the repository indicated below, and open the file oxygenModel.Rmd.
- or you don’t have RStudio, and in that case you can work on a remote platform called binder. To do that, click on the “launch binder” badge inside the README.md file, visible directly on the GitHub repository indicated below. Then, open a Rstudio notebook and open the file oxygenModel.Rmd.

<https://github.com/camilleminaudo/oxygen-model-students>



You don't have RStudio installed



<https://github.com/camilleminaudo/oxygen-model-students>



oxygenModel.Rmd



Open the file oxygenModel.Rmd.

Make sure all packages are properly installed and loaded.

It is only required to fill in the blanks: add values for constants, and correctly write the equations for the model to run.

Ask for help if you are stuck.

B. Play with the model

- 1) Visualize the model outputs (out.model or out.model_daily or out.model_daily_sum)
- 2) Study the impact of over-simplification
Fix one of the variables to a value of 0, recompute the model at all timesteps and see the impact on the model outputs.
- 3) What could be added to the model to increase its performances?