



*Minicurso Como a tecnologia pode
auxiliar a entender a distribuição das espécies?*
Marina Gomes & Durval Santos - 2025



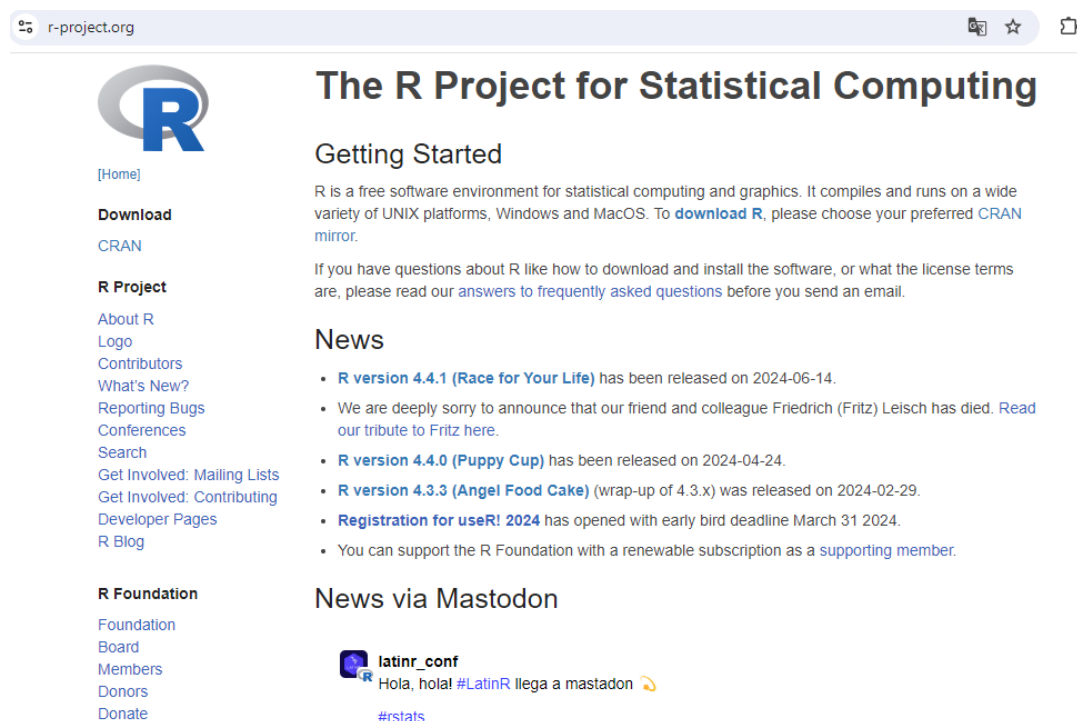
Tutorial Instalação do R & RStudio

Instalando o R

O R é uma linguagem de programação que vem sendo utilizada em várias áreas, especialmente na área de bioinformática para manipulação, análise e visualização de dados, sendo atualmente considerada uma das melhores ferramentas para essa finalidade. A linguagem pode ser executada em diferentes sistemas operacionais, como Windows, Mac OS e Linux e possui código aberto.

Para iniciar a instalação:

Abra o link oficial do R: <https://www.r-project.org/>



The screenshot shows the official R Project website. The header includes the R logo and the text "The R Project for Statistical Computing". The main content area is titled "Getting Started" and provides information about downloading R, including a link to the CRAN mirror. Below this, there is a "News" section with several bullet points about recent releases and events. On the left side, there is a navigation menu with links to various resources. At the bottom, there is a "News via Mastodon" section with a tweet from @latinr_conf.

The R Project for Statistical Computing

Getting Started


R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. To [download R](#), please choose your preferred [CRAN mirror](#).

If you have questions about R like how to download and install the software, or what the license terms are, please read our [answers to frequently asked questions](#) before you send an email.

News

- **R version 4.4.1 (Race for Your Life)** has been released on 2024-06-14.
- We are deeply sorry to announce that our friend and colleague Friedrich (Fritz) Leisch has died. [Read our tribute to Fritz here](#).
- **R version 4.4.0 (Puppy Cup)** has been released on 2024-04-24.
- **R version 4.3.3 (Angel Food Cake)** (wrap-up of 4.3.x) was released on 2024-02-29.
- **Registration for useR! 2024** has opened with early bird deadline March 31 2024.
- You can support the R Foundation with a renewable subscription as a [supporting member](#).

News via Mastodon

 **latinr_conf**
Hola, hola! #LatinR llega a mastadon 🐉
[#rstats](#)

Clique em “download R”:



[Home]

Download

CRAN

R Project

About R

Logo

Contributors

What's New?

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Conferences

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Get Involved: Contributing

Developer Pages

R Blog

R Foundation

Foundation

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Members

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The R Project for Statistical Computing

Getting Started

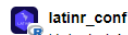
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News via Mastodon



Hola, hola! #LatinR llega a mastodon 🐘
#rstats

Selecione de onde fará o download (em geral, eu seleciono o “0-Cloud”):

CRAN Mirrors

The Comprehensive R Archive Network is available at the following URLs, please choose a location close to you. Some statistics on the status of the mirrors can be found here: [main page](#), [windows release](#), [windows old release](#).

If you want to host a new mirror at your institution, please have a look at the [CRAN Mirror HOWTO](#).

0-Cloud

<https://cloud.r-project.org/>

Automatic redirection to servers worldwide, currently sponsored by Posit

Argentina

<http://mirror.fcaglp.unlp.edu.ar/CRAN/>

Universidad Nacional de La Plata

Australia

<https://cran.csiro.au/>

CSIRO

<https://mirror.aarnet.edu.au/pub/CRAN/>

AARNET

<https://cran.ms.unimelb.edu.au/>

School of Mathematics and Statistics, University of Melbourne

Austria

<https://cran.wu.ac.at/>

Wirtschaftsuniversität Wien

Belgium

<https://www.freestats.org/cran/>

Patrick Wessa

<https://ftp.belnet.be/mirror/CRAN/>

Belnet, the Belgian research and education network

Brazil

<https://cran-r.c3sl.ufpr.br/>

Universidade Federal do Parana

<https://vps.fmvz.usp.br/CRAN/>

University of Sao Paulo, Sao Paulo

<https://brieger.esalq.usp.br/CRAN/>

University of Sao Paulo, Piracicaba

Bulgaria

<https://ftp.uni-sofia.bg/CRAN/>

Sofia University

Canada

<https://mirror.rcg.afu.ca/mirror/CRAN/>

Simon Fraser University, Burnaby

<https://muug.ca/mirror/cran/>

Manitoba Unix User Group

<https://mirror.csclub.uwaterloo.ca/CRAN/>

University of Waterloo

Selecione o seu sistema operacional e faça o download e instalação padrão do arquivo .exe



The Comprehensive R Archive Network

Download and Install R

Precompiled binary distributions of the base system and contributed packages, **Windows and Mac** users most likely want one of these versions of R:

- [Download R for Linux \(Debian, Fedora/Redhat, Ubuntu\)](#)
- [Download R for macOS](#)
- [Download R for Windows](#)

R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.

Source Code for all Platforms

Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (2024-06-14, Race for Your Life) [R-4.4.1.tar.gz](#), read [what's new](#) in the latest version.
- Sources of [R alpha and beta releases](#) (daily snapshots, created only in time periods before a planned release).
- Daily snapshots of current patched and development versions are [available here](#). Please read about [new features and bug fixes](#) before filing corresponding feature requests or bug reports.
- Source code of older versions of R is [available here](#).
- Contributed extension [packages](#)

Questions About R

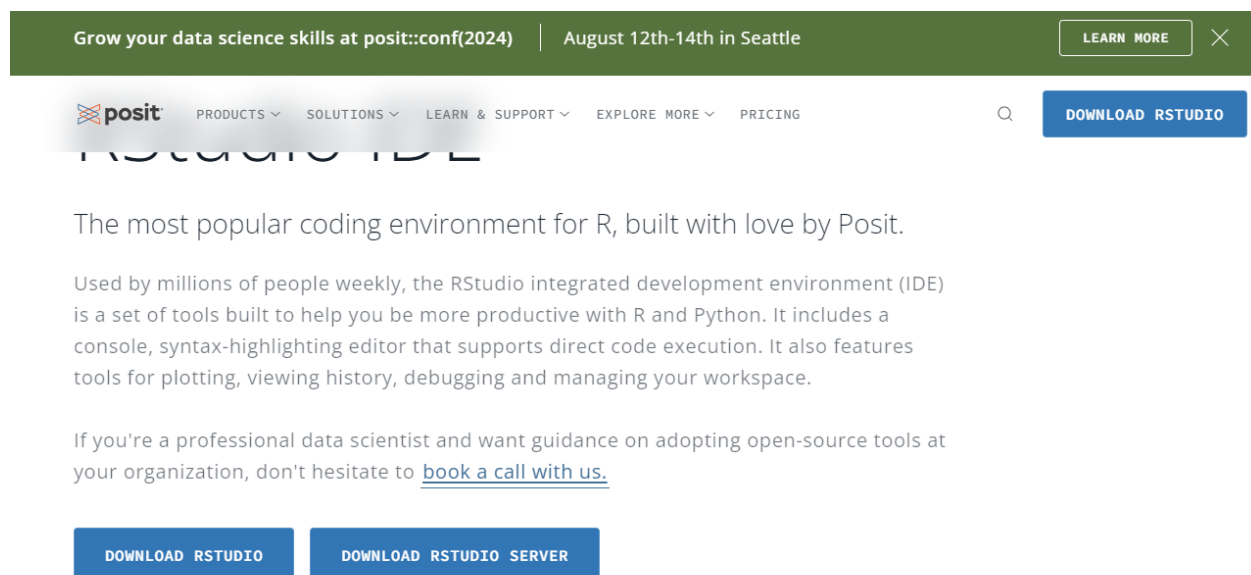
- If you have [questions about R](#) like how to download and install the software, or what the license terms are, please read our

Instalando o RStudio

Uma das formas de utilizar o R em um ambiente mais “agradável” é utilizando através do RStudio. O RStudio é um ambiente de desenvolvimento integrado para o R, gratuito e muito simples de usar.

Para iniciar a instalação:


Abra o link oficial do RStudio: <https://posit.co/downloads/>



The screenshot shows the RStudio website homepage. At the top, there is a green banner with the text "Grow your data science skills at posit::conf(2024) | August 12th-14th in Seattle" and a "LEARN MORE" button. Below the banner is a navigation bar with the Posit logo and links for PRODUCTS, SOLUTIONS, LEARN & SUPPORT, EXPLORE MORE, and PRICING. A "DOWNLOAD RSTUDIO" button is prominently displayed on the right. The main content area features the headline "The most popular coding environment for R, built with love by Posit." followed by a paragraph describing RStudio as an integrated development environment (IDE) used by millions of people weekly. It lists features like a console, syntax-highlighting editor, and tools for plotting and debugging. At the bottom, there are two buttons: "DOWNLOAD RSTUDIO" and "DOWNLOAD RSTUDIO SERVER".

Clique em “Download RStudio”:

Grow your data science skills at [posit::conf\(2024\)](#) | August 12th-14th in Seattle [LEARN MORE](#) ✕

 PRODUCTS ▾ SOLUTIONS ▾ LEARN & SUPPORT ▾ EXPLORE MORE ▾ PRICING [DOWNLOAD RSTUDIO](#)

Download RStudio

The most popular coding environment for R, built with love by Posit.


Used by millions of people weekly, the RStudio integrated development environment (IDE) is a set of tools built to help you be more productive with R and Python. It includes a console, syntax-highlighting editor that supports direct code execution. It also features tools for plotting, viewing history, debugging and managing your workspace.

If you're a professional data scientist and want guidance on adopting open-source tools at your organization, don't hesitate to [book a call with us](#).

[DOWNLOAD RSTUDIO](#) [DOWNLOAD RSTUDIO SERVER](#)

Clique em “Download R Studio for Windows”:

Grow your data science skills at [posit::conf\(2024\)](#) | August 12th-14th in Seattle [LEARN MORE](#)

 PRODUCTS ▾ SOLUTIONS ▾ LEARN & SUPPORT ▾ EXPLORE MORE ▾ PRICING

1: Install R

RStudio requires R 3.6.0+. Choose a version of R that matches your computer's operating system.

R is not a Posit product. By clicking on the link below to download and install R, you are leaving the Posit website. Posit disclaims any obligations and all liability with respect to R and the R website.

[DOWNLOAD AND INSTALL R](#)

2: Install RStudio

[DOWNLOAD RSTUDIO DESKTOP FOR WINDOWS](#)

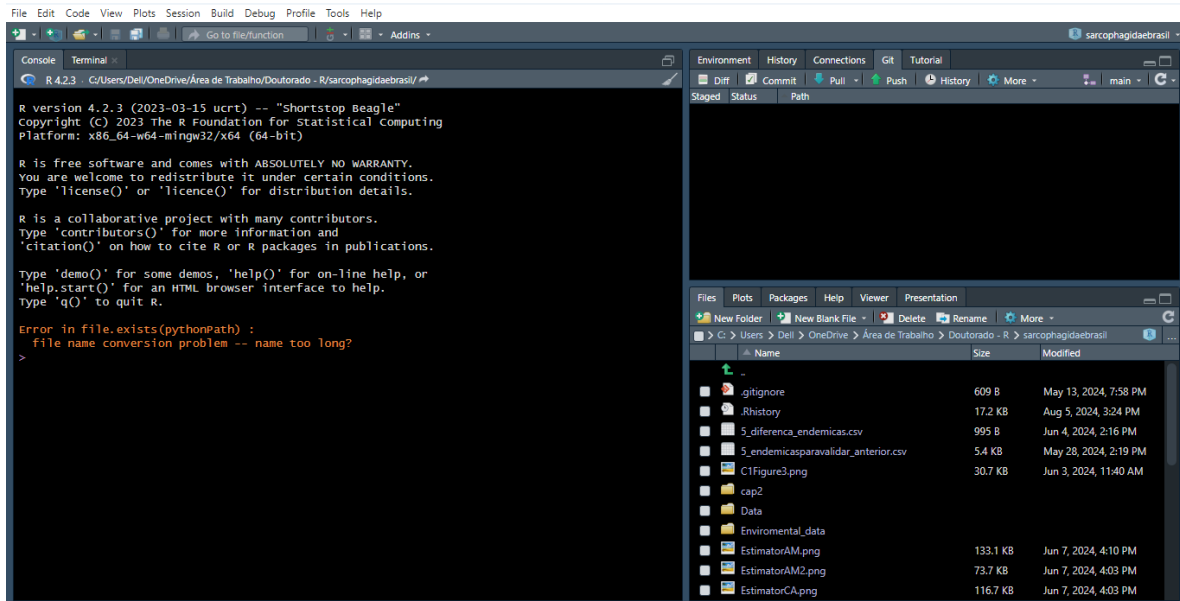
Size: 262.79 MB | [SHA-256: 09E1E38A](#) | Version: 2024.04.2+764 | Released: 2024-06-10

Faça o download e instalação padrão do arquivo .exe

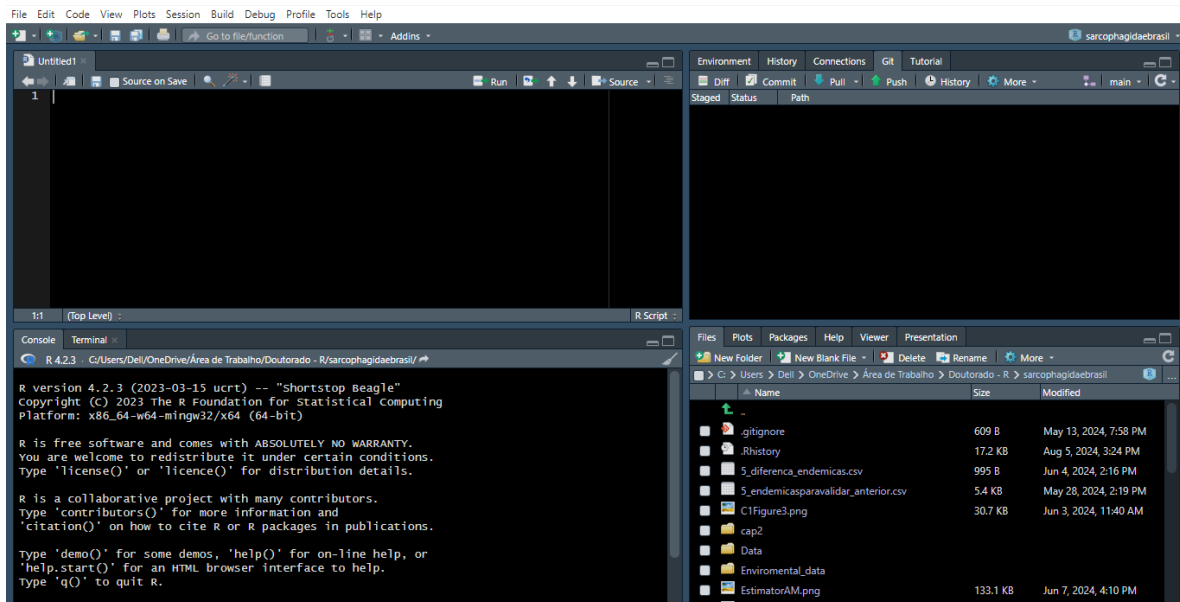
Caso reste alguma dúvida, você pode acompanhar como fazer a instalação do R e RStudio através desse [vídeo](#).

Entendendo o RStudio

Abra o ícone do RStudio no seu computador

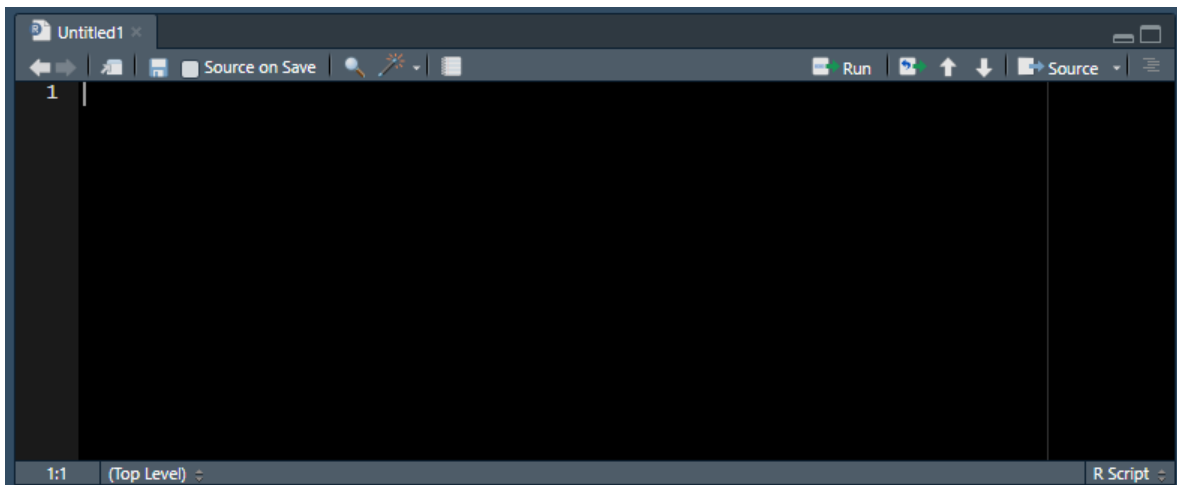


Repare que o RStudio é dividido em áreas diferentes. Abra File > New File > RScript. A sua tela ficará assim:

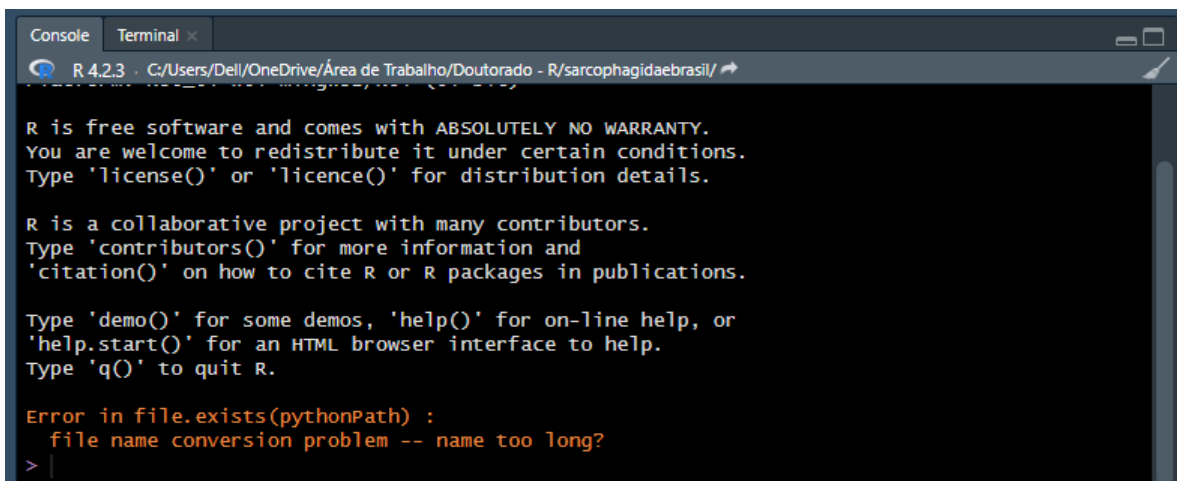


O canto esquerdo superior da tela é onde fica o seu script. Um script é um arquivo onde fica salvo um conjunto de instruções para que

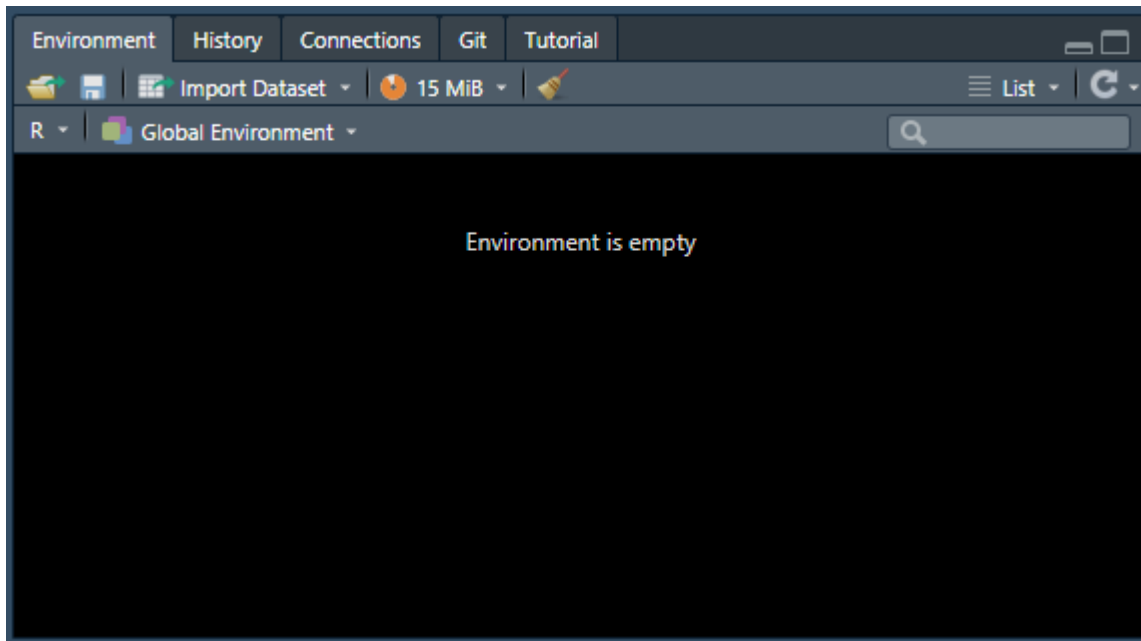
uma função ou uma série de funções sejam executadas em determinado aplicativo. Essa é a forma mais fácil de trabalhar no R, já que você consegue adicionar comentários (utilizando as #) e juntar uma série de funções.



No canto esquerdo inferior, é onde você opera o console. Lá você também consegue as mesmas funções que você roda pelo script, só que você não consegue salvar a sequência de funções. É como se fosse o histórico do seu navegador, você consegue ver tudo que foi rodado. É também nessa tela que você vai conseguir ver o que está rodando durante uma análise e quais os possíveis erros e avisos.



No canto direito superior, ficam duas áreas importantes: o “environment” e o “Git” caso você esteja usando um projeto conectado com o GitHub.



Por fim, o canto direito inferior é onde você pode ver os arquivos do diretório onde está trabalhando, os plots gerados pelas análises e o tutorial de cada pacote, que no R é chamado de “help”.

Files

Plots

Packages

Help

Viewer

Presentation

New Folder

New Blank File

Delete

Rename

More

C: > Users > Dell > OneDrive > Área de Trabalho > Doutorado - R > sarcophagidaebrasil

Name	Size	Modified
..		
.gitignore	609 B	May 13, 2024, 7:58 PM
.Rhistory	17.2 KB	Aug 5, 2024, 3:24 PM
5_diferenca_endemicas.csv	995 B	Jun 4, 2024, 2:16 PM
5_endemicasparavalidar_anterior.csv	5.4 KB	May 28, 2024, 2:19 PM
C1Figure3.png	30.7 KB	Jun 3, 2024, 11:40 AM
cap2		
Data		
Enviromental_data		
EstimatorAM.png	133.1 KB	Jun 7, 2024, 4:10 PM