

Linking GitHub & R

ENTMLGY 6707

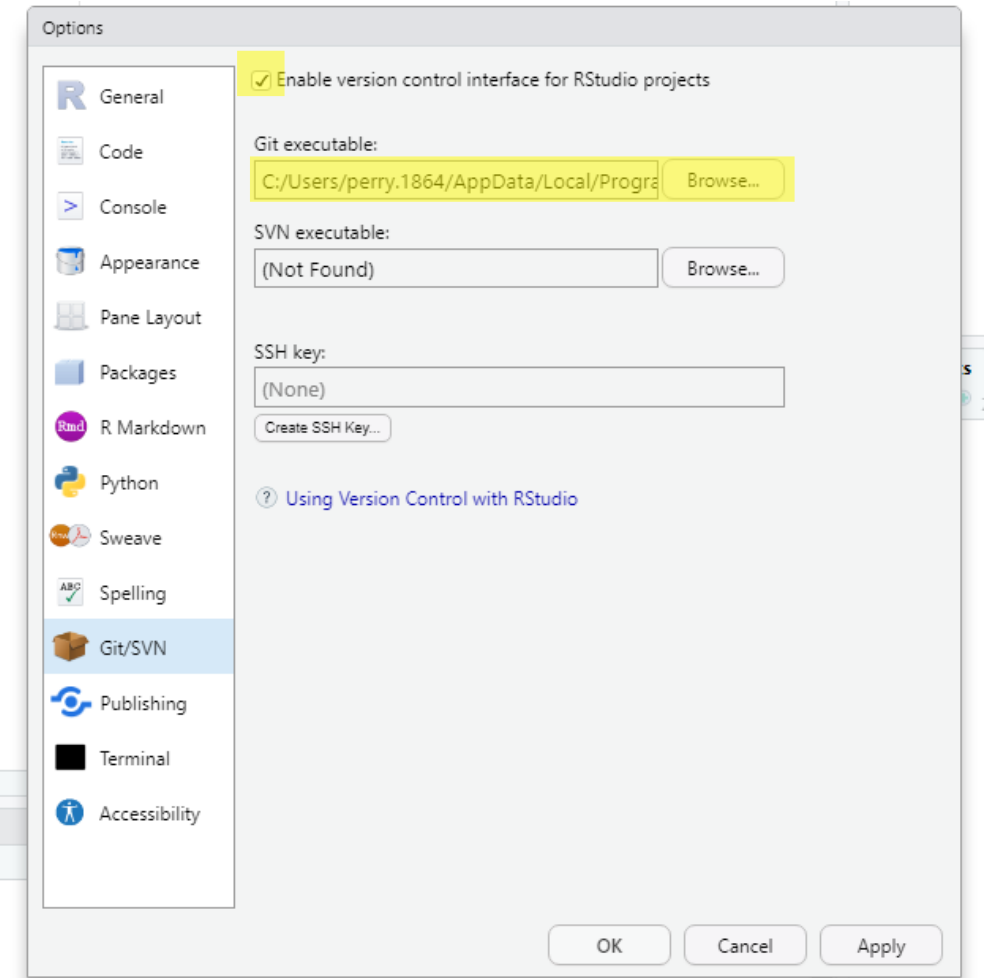
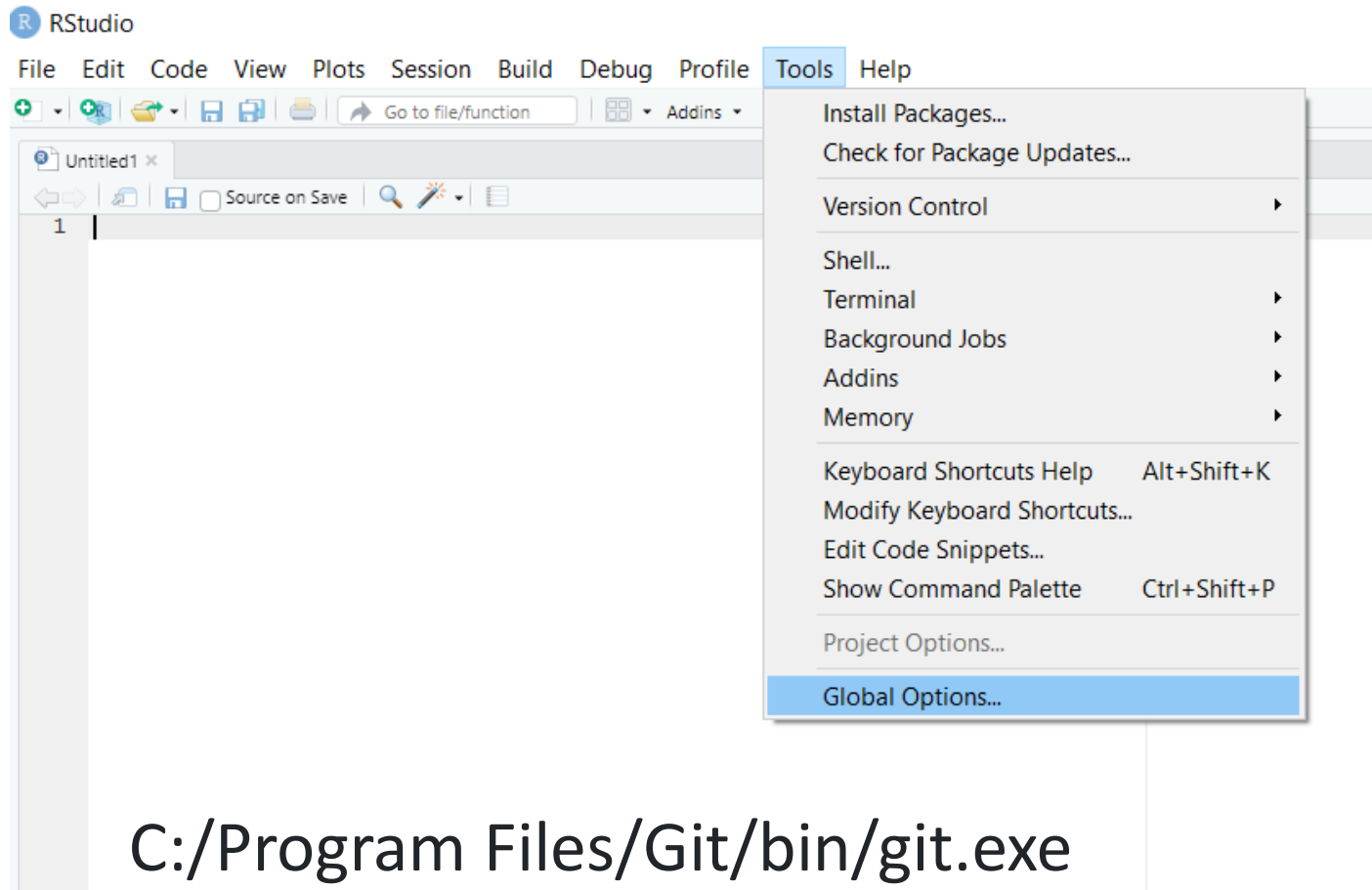
Entomological Techniques and Data Analysis



Integrate Git in RStudio

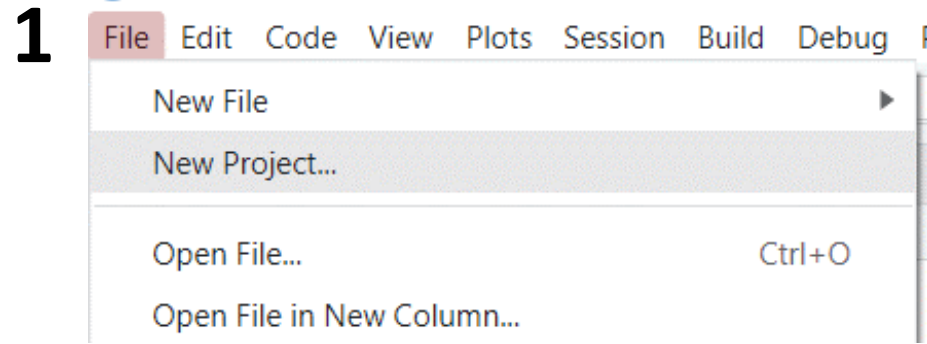
1) Check enable version control

2) Set path to git.exe file

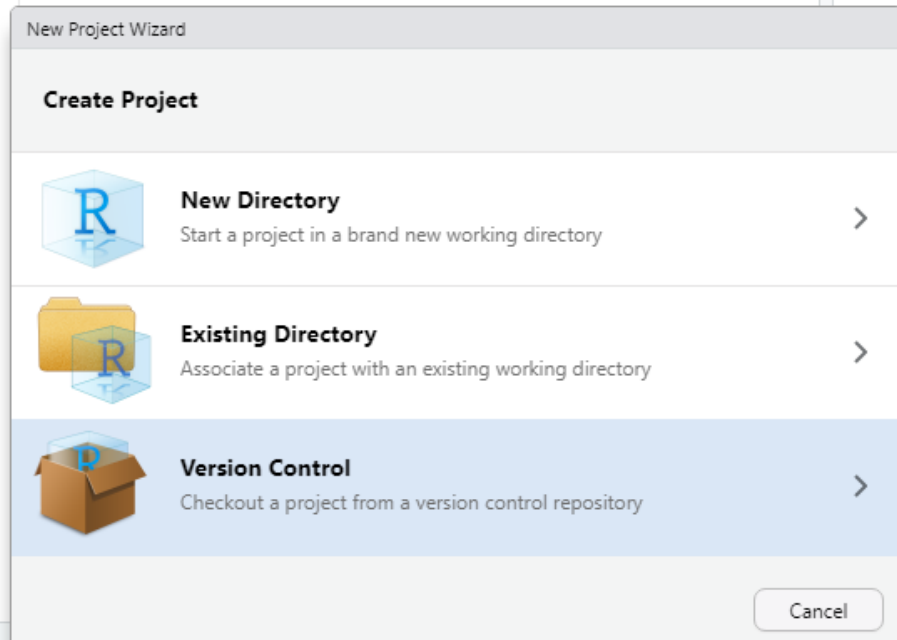


C:/Program Files/Git/bin/git.exe

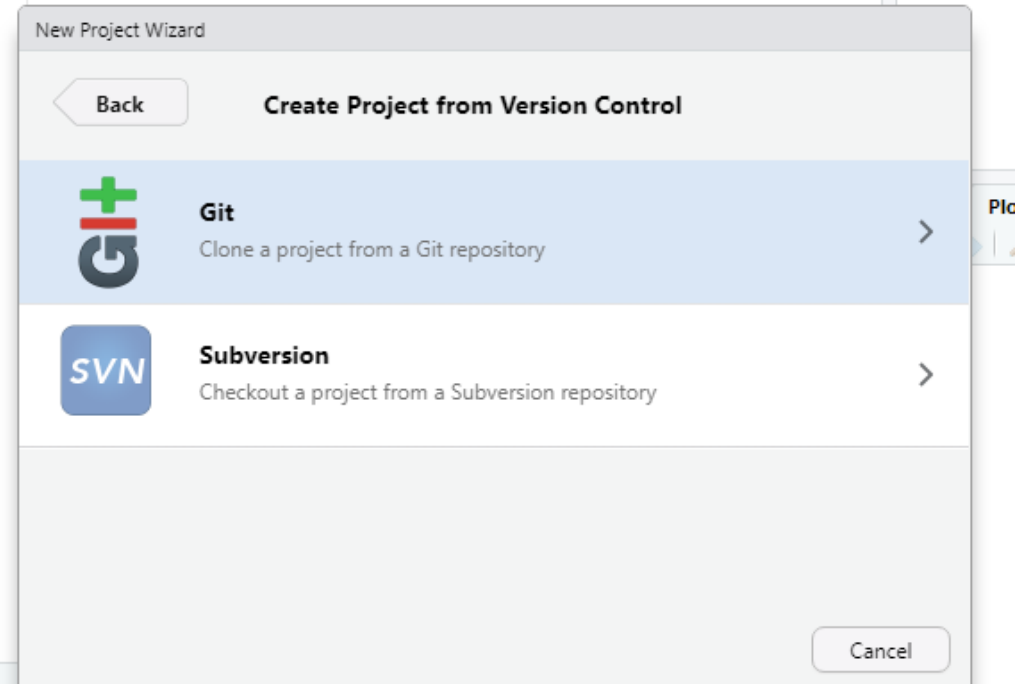
Check to make sure Git and RStudio are linked



2



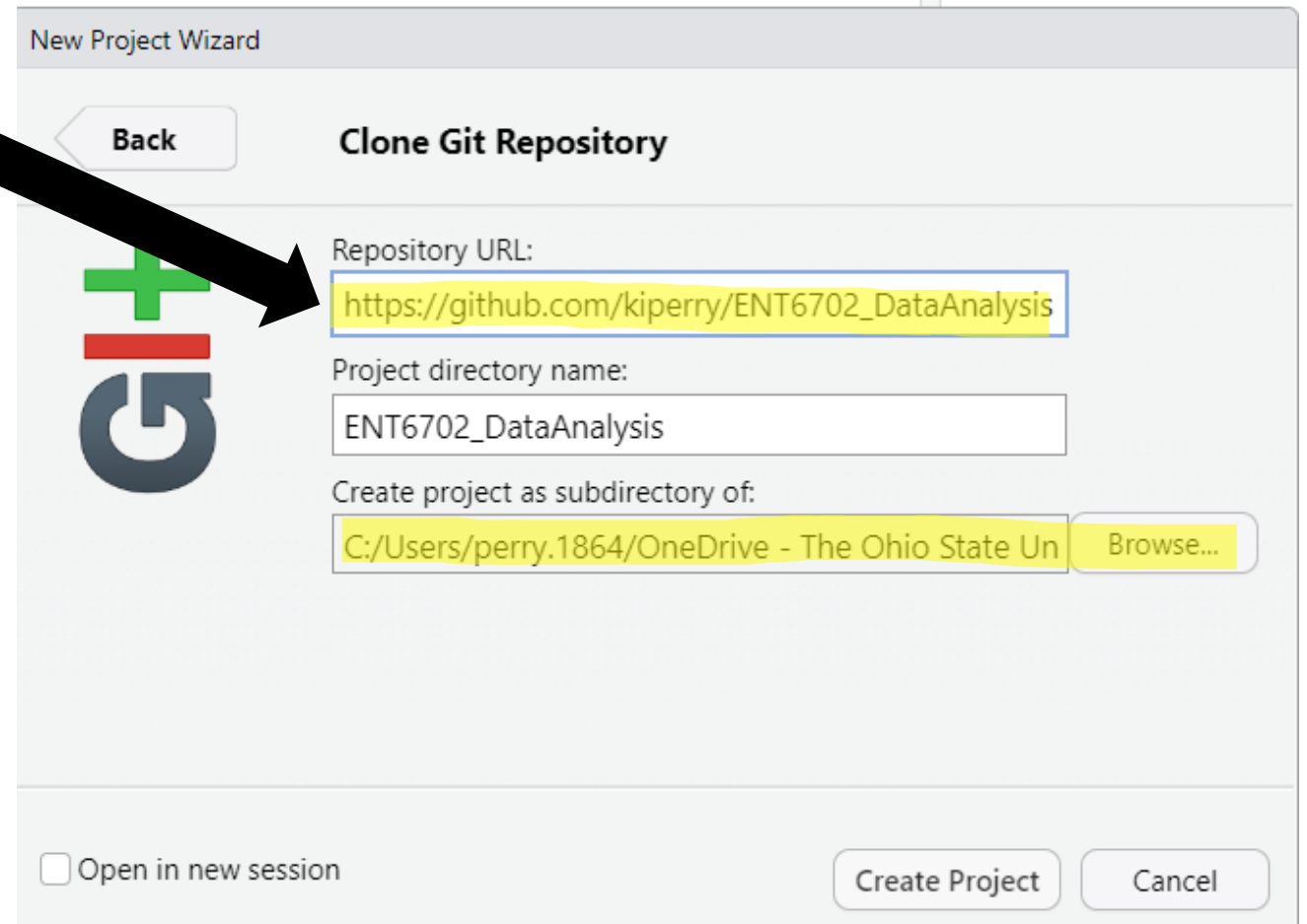
3



Clone a repository on GitHub to your computer

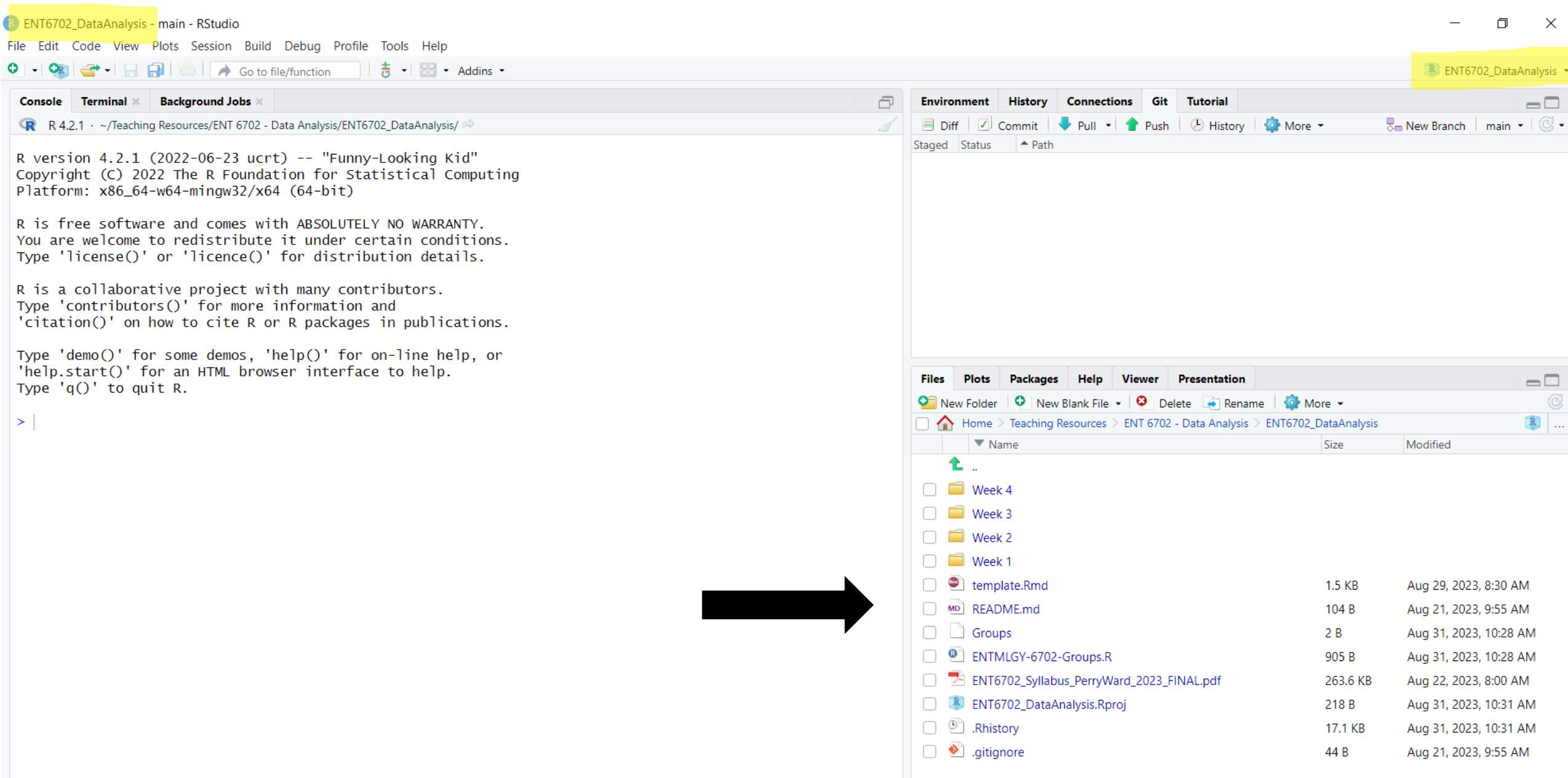
Copy and paste repo link

ENT6707_DataAnalysis



https://github.com/kiperry/ENT6707_DataAnalysis

Clone a repository on GitHub to your computer



The image shows the RStudio interface with a cloned GitHub repository. The console on the left displays the R version and welcome message. The file explorer on the right shows the directory structure of the repository, including folders for each week and various files like README.md and .gitignore.

Console Output:

```
R version 4.2.1 (2022-06-23 ucrt) -- "Funny-Looking Kid"
Copyright (C) 2022 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

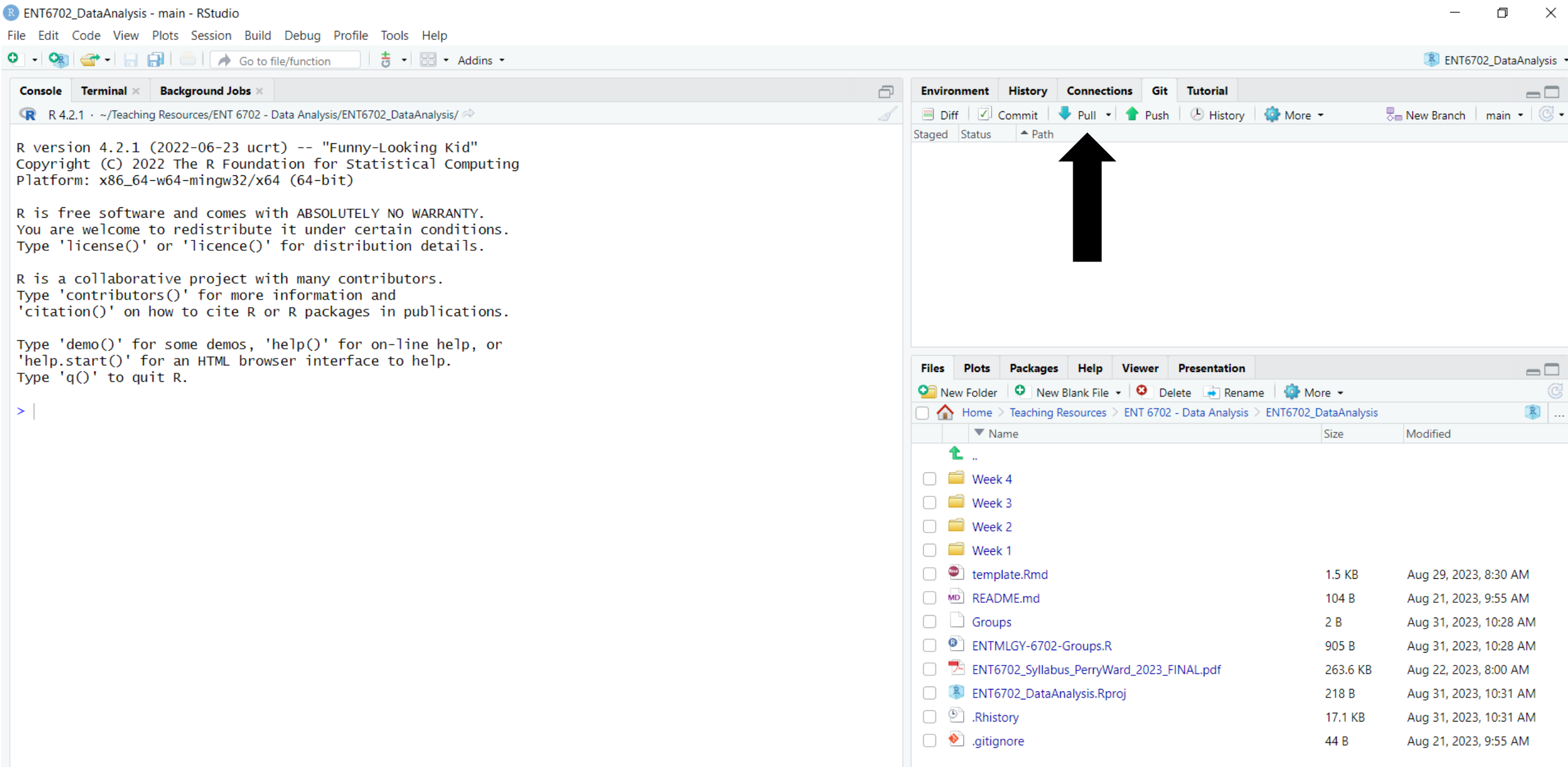
Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> |
```

File Explorer (ENT6702_DataAnalysis):

Name	Size	Modified
..		
Week 4		
Week 3		
Week 2		
Week 1		
template.Rmd	1.5 KB	Aug 29, 2023, 8:30 AM
README.md	104 B	Aug 21, 2023, 9:55 AM
Groups	2 B	Aug 31, 2023, 10:28 AM
ENTMLGY-6702-Groups.R	905 B	Aug 31, 2023, 10:28 AM
ENT6702_Syllabus_PerryWard_2023_FINAL.pdf	263.6 KB	Aug 22, 2023, 8:00 AM
ENT6702_DataAnalysis.Rproj	218 B	Aug 31, 2023, 10:31 AM
.Rhistory	17.1 KB	Aug 31, 2023, 10:31 AM
.gitignore	44 B	Aug 21, 2023, 9:55 AM

Open R project and pull changes to your computer



The screenshot shows the RStudio interface with the following components:

- Terminal:** Displays R version 4.2.1 (2022-06-23 ucrt) -- "Funny-Looking Kid" and copyright information. It also shows instructions for using R, such as `license()`, `contributors()`, and `demo()`.
- Environment/History/Connections/Git/Tutorial:** The 'Connections' tab is active, showing a 'Pull' button with a downward arrow. A large black arrow points to this button.
- Files:** The 'Files' tab is active, showing a file explorer view of the project directory. The directory structure includes folders for 'Week 1' through 'Week 4' and several files: `template.Rmd`, `README.md`, `Groups`, `ENTMLGY-6702-Groups.R`, `ENT6702_Syllabus_PerryWard_2023_FINAL.pdf`, `ENT6702_DataAnalysis.Rproj`, `.Rhistory`, and `.gitignore`.

The 'Files' tab shows a table of files and folders:

Name	Size	Modified
..		
Week 4		
Week 3		
Week 2		
Week 1		
template.Rmd	1.5 KB	Aug 29, 2023, 8:30 AM
README.md	104 B	Aug 21, 2023, 9:55 AM
Groups	2 B	Aug 31, 2023, 10:28 AM
ENTMLGY-6702-Groups.R	905 B	Aug 31, 2023, 10:28 AM
ENT6702_Syllabus_PerryWard_2023_FINAL.pdf	263.6 KB	Aug 22, 2023, 8:00 AM
ENT6702_DataAnalysis.Rproj	218 B	Aug 31, 2023, 10:31 AM
.Rhistory	17.1 KB	Aug 31, 2023, 10:31 AM
.gitignore	44 B	Aug 21, 2023, 9:55 AM

You can clone any public repositories on GitHub

However, only collaborators can make changes (via commit & push)

The screenshot shows the GitHub repository settings page for the repository 'kiperry / OSU_Statistics_Workshops'. The 'Settings' tab is selected in the top navigation bar. On the left sidebar, the 'Collaborators' section is highlighted under the 'Access' category. The main content area is titled 'Who has access' and shows two sections: 'PUBLIC REPOSITORY' and 'DIRECT ACCESS'. The 'PUBLIC REPOSITORY' section states 'This repository is public and visible to anyone.' and has a 'Manage' link. The 'DIRECT ACCESS' section states '0 collaborators have access to this repository. Only you can contribute to this repository.' Below this, the 'Manage access' section shows a message 'You haven't invited any collaborators yet' with an 'Add people' button highlighted in yellow.

kiperry / OSU_Statistics_Workshops Public

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

General

Access

Collaborators

Moderation options

Code and automation

Branches

Tags

Actions

Webhooks

Environments

Codespaces

Pages

Security

Code security and analysis

Who has access

PUBLIC REPOSITORY

This repository is public and visible to anyone.

Manage

DIRECT ACCESS

0 collaborators have access to this repository. Only you can contribute to this repository.

Manage access

You haven't invited any collaborators yet

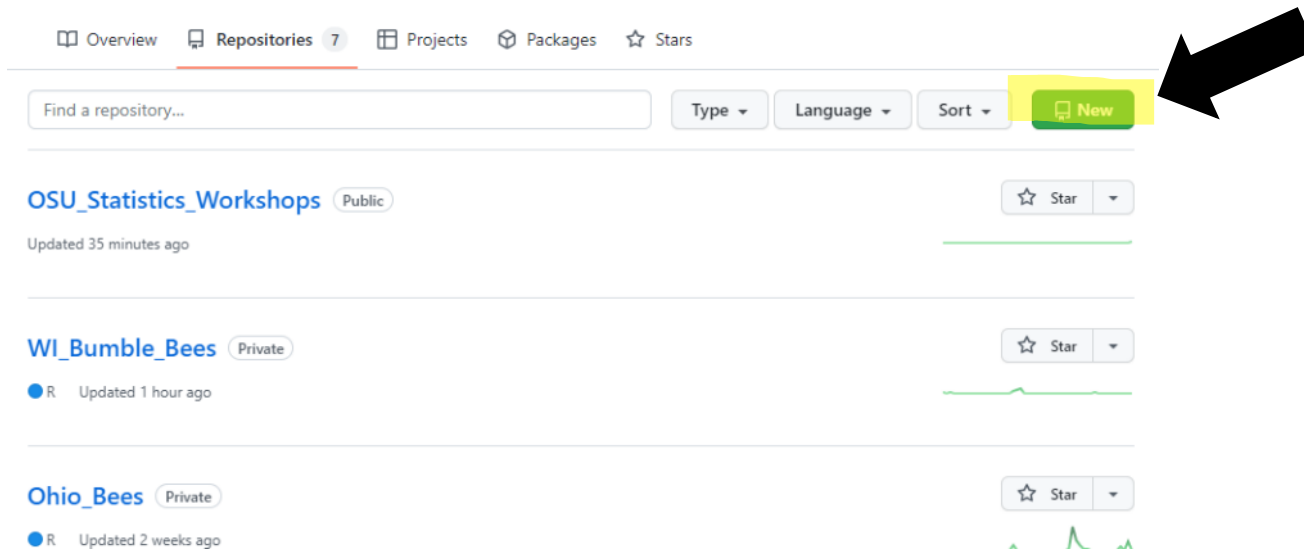
Add people

Add collaborators
to your repositories
in settings

Create your own repository!

Create your own repository!

1. Log into your GitHub account, go to the Repositories tab, click New



Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Repository template

Start your repository with a template repository's contents.

No template ▾

Owner *

kiperry ▾

Repository name *

PNR_Beetles ✓

Great repository names are short and memorable. Need inspiration? How about [crispy-train](#)?

Description (optional)

☒



Public

Anyone on the internet can see this repository. You choose who can commit.

☐



Private

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☒ Add a README file

This is where you can write a long description for your project. [Learn more.](#)

Add .gitignore

Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: None ▾

Choose a license

A license tells others what they can and can't do with your code. [Learn more.](#)


License: None ▾

This will set `main` as the default branch. Change the default name in your [settings](#).

 You are creating a public repository in your personal account.

Create repository

Edit your README file

 kiperry / **PNR_Beetles** Public


[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)


main

1 branch

0 tags

[Go to file](#) [Add file](#) [Code](#)

 kiperry Initial commit csf2a4c 1 minute ago 1 commit

 README.md Initial commit 1 minute ago

README.md

PNR_Beetles

About

No description, website, or topics provided.

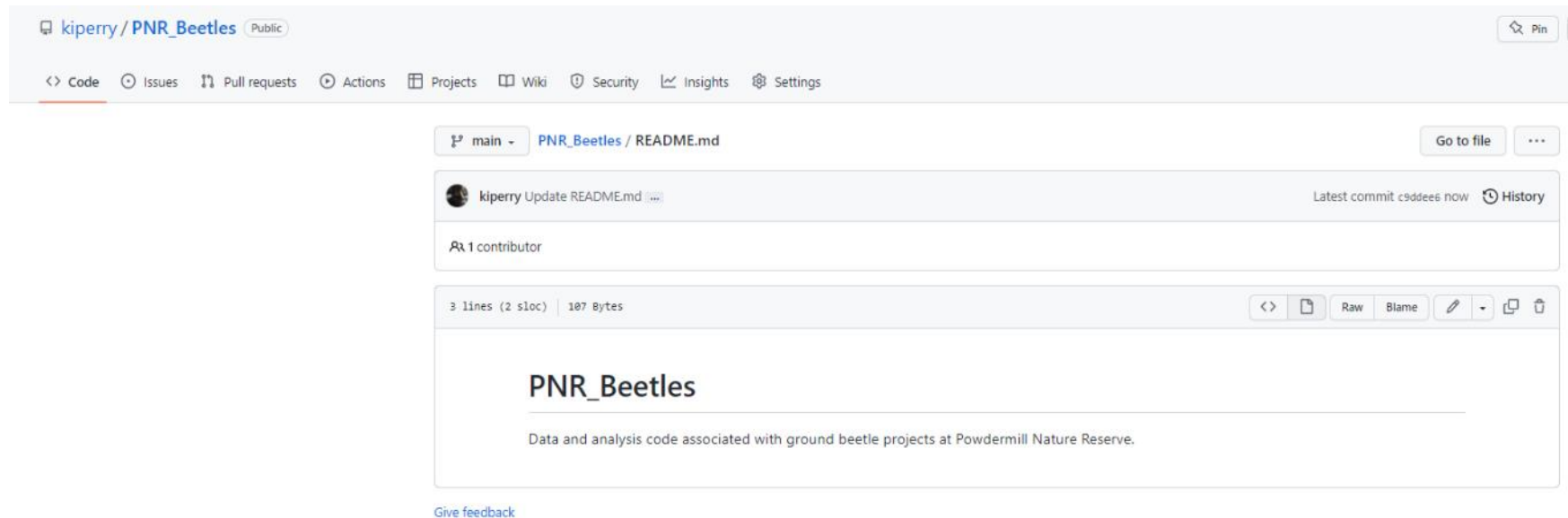
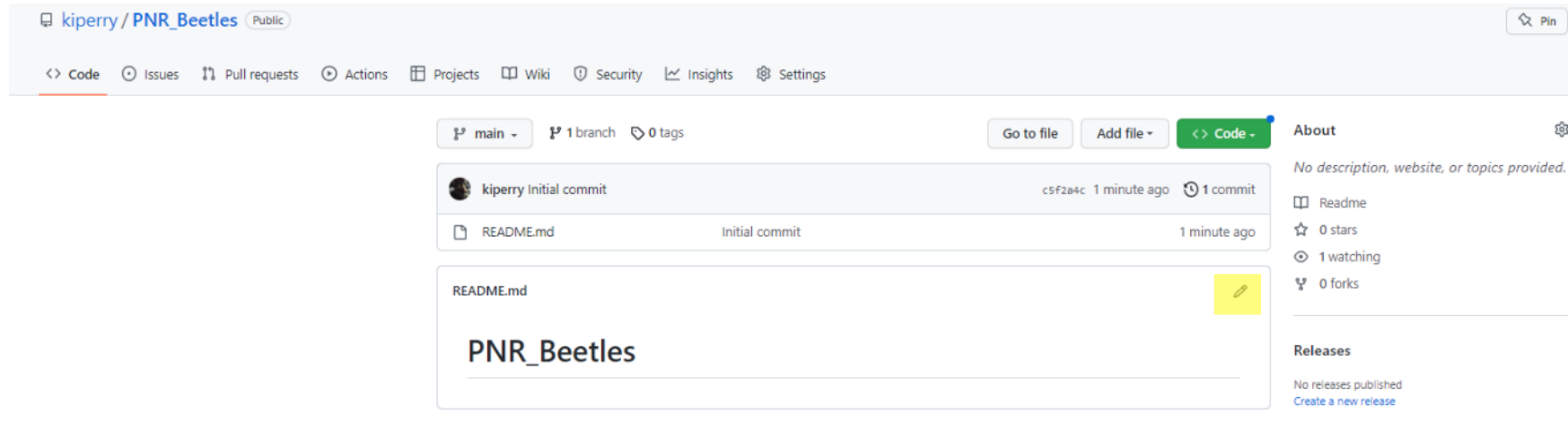
- Readme
- 0 stars
- 1 watching
- 0 forks

Releases

No releases published

[Create a new release](#)

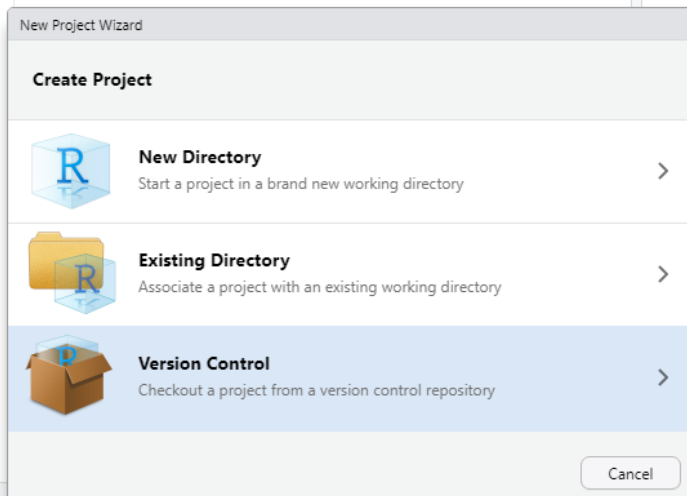
Edit your README file



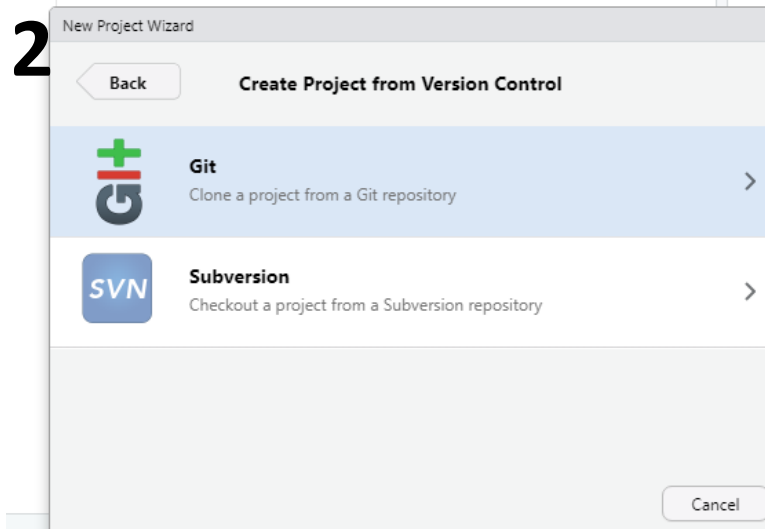
Update readme file
with a commit

Clone your newly created GitHub repository using R

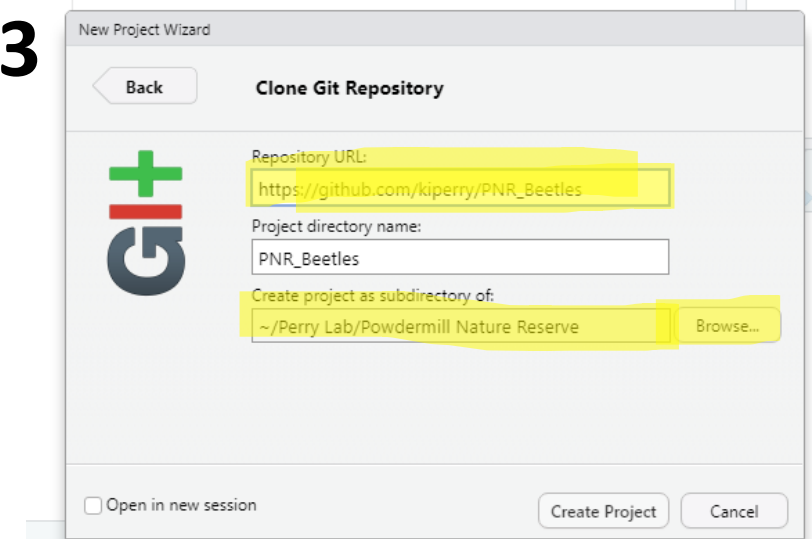
1



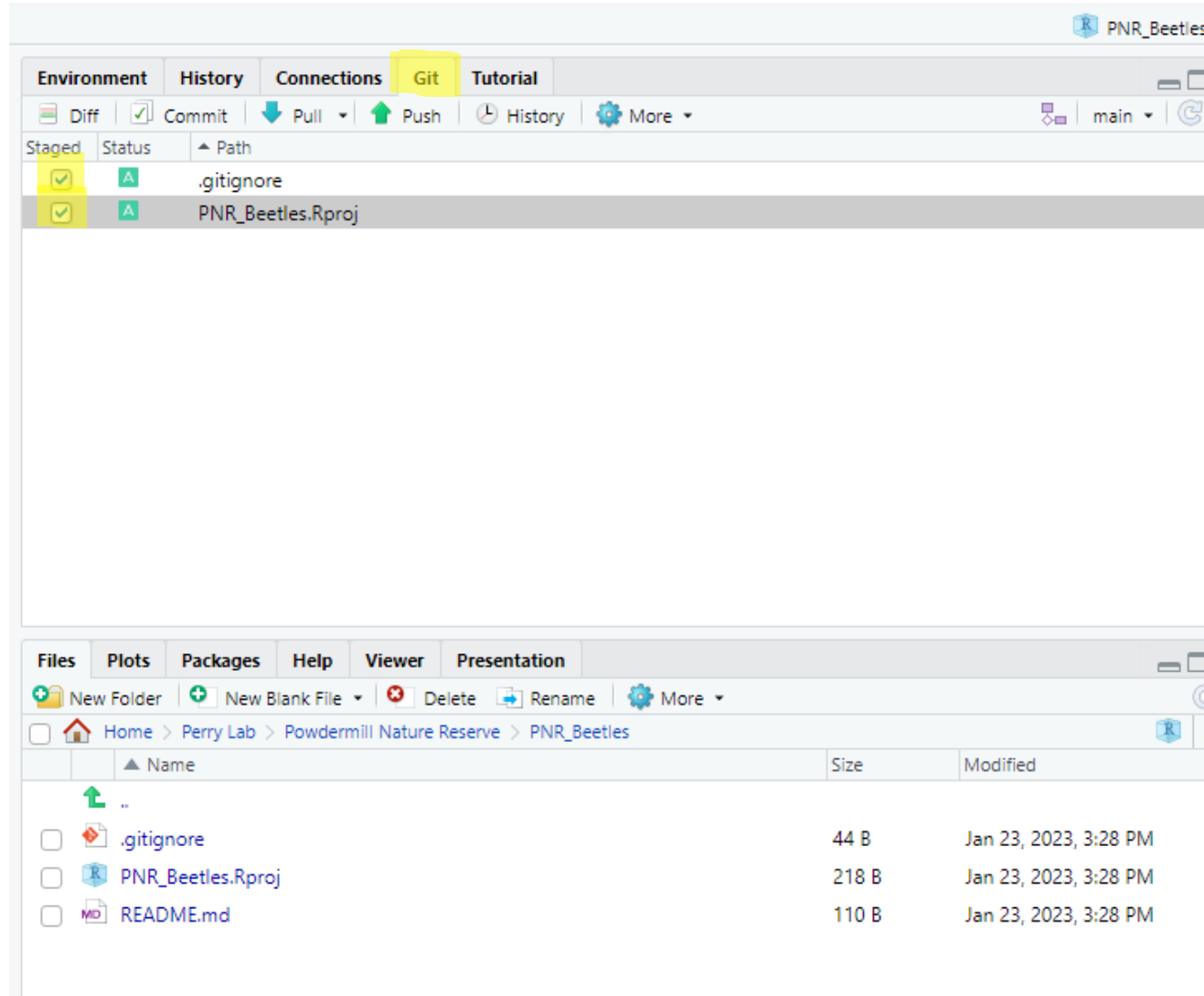
2



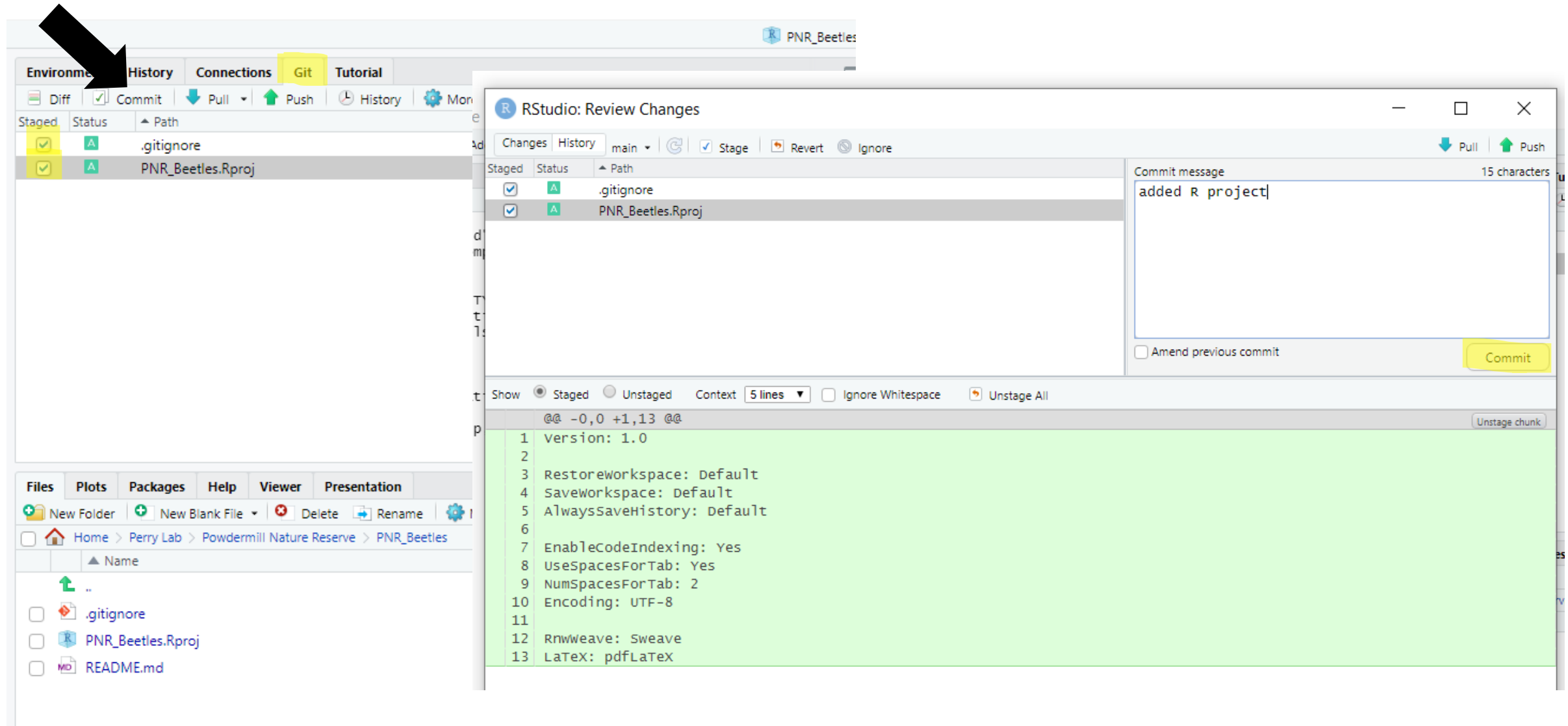
3



Select Git tab and make a commit to save changes



Select Git tab and make a commit to save changes



The image shows the RStudio interface with the Git tab selected. A black arrow points to the 'Git' tab in the top menu bar. The 'Staged' section of the Git pane shows two files: `.gitignore` and `PNR_Beetles.Rproj`, both with a green 'A' icon indicating they are new. The 'Commit' button is visible in the top toolbar. The 'Files' pane at the bottom left shows the project structure: `Home > Perry Lab > Powdermill Nature Reserve > PNR_Beetles`. The files listed are `..`, `.gitignore`, `PNR_Beetles.Rproj`, and `README.md`. The 'RStudio: Review Changes' dialog is open, showing the same two files in the 'Staged' section. The 'Commit message' field contains the text 'added R project'. The 'Commit' button is highlighted in yellow. The diff view at the bottom shows the content of `PNR_Beetles.Rproj`, which is a file with 13 lines of configuration settings.

RStudio: Review Changes

Changes | History | main | Stage | Revert | Ignore

Staged | Status | Path

- ☒ `.gitignore`
- ☒ `PNR_Beetles.Rproj`

Commit message (15 characters):
added R project

☐ Amend previous commit **Commit**

Show: ☒ Staged ☐ Unstaged Context: 5 lines ☐ Ignore Whitespace ☒ Unstage All

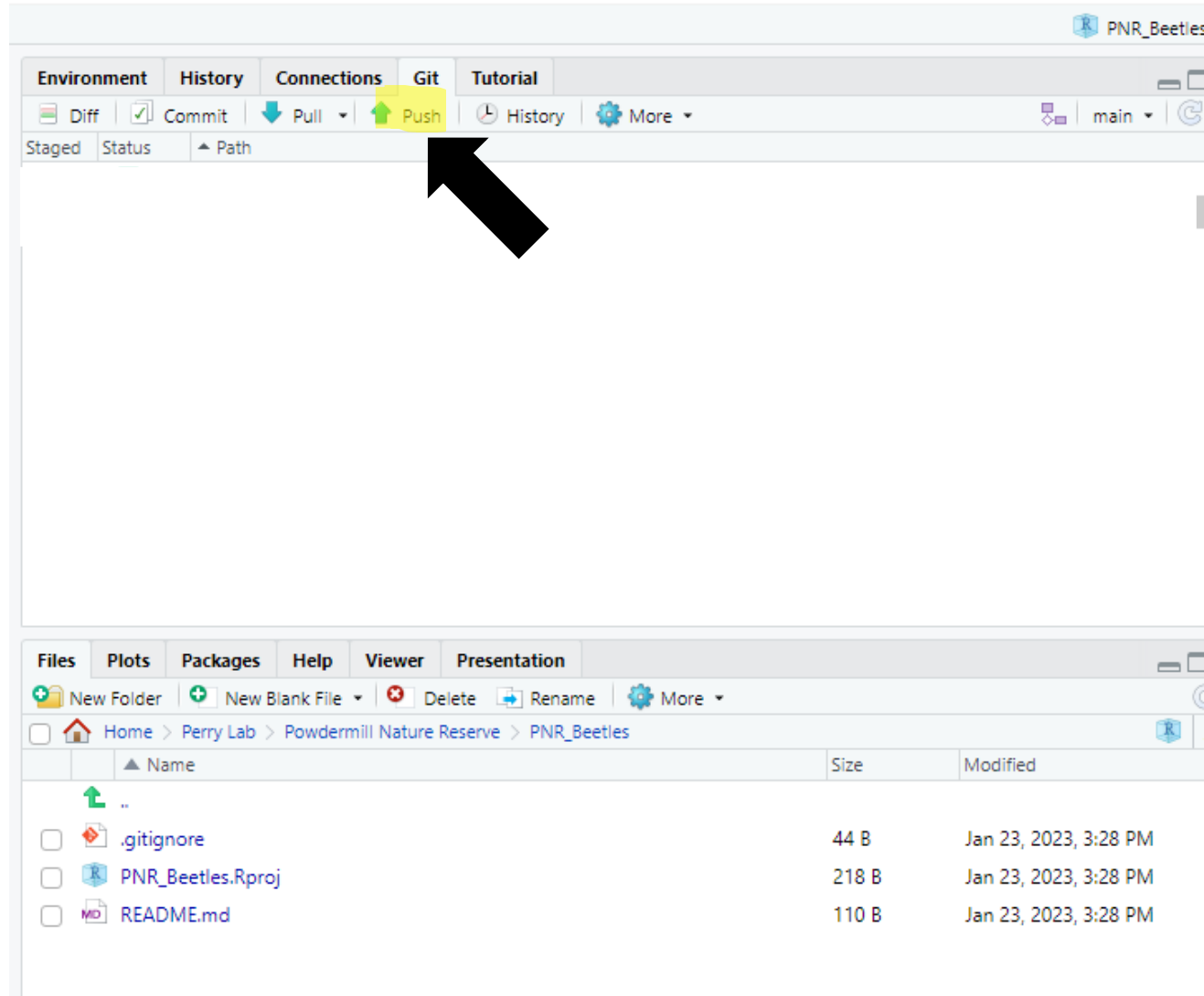
@@ -0,0 +1,13 @@

```
1 Version: 1.0
2
3 Restoreworkspace: Default
4 Saveworkspace: Default
5 AlwaysSaveHistory: Default
6
7 EnableCodeIndexing: Yes
8 Usespacesfortab: Yes
9 Numspacesfortab: 2
10 Encoding: UTF-8
11
12 Rnwweave: Sweave
13 LaTeX: pdfLaTeX
```

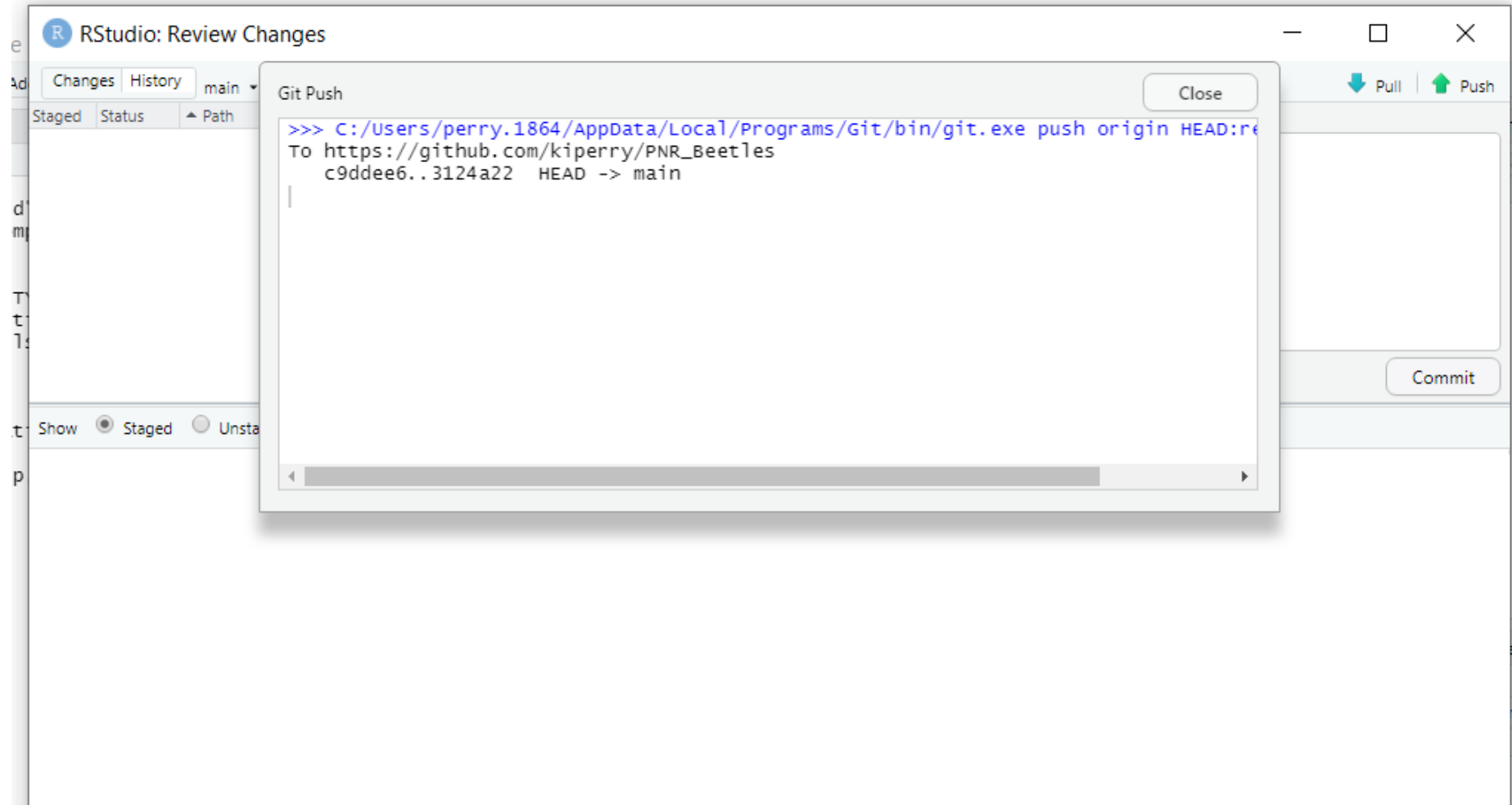
Select Git tab and make a commit to save changes



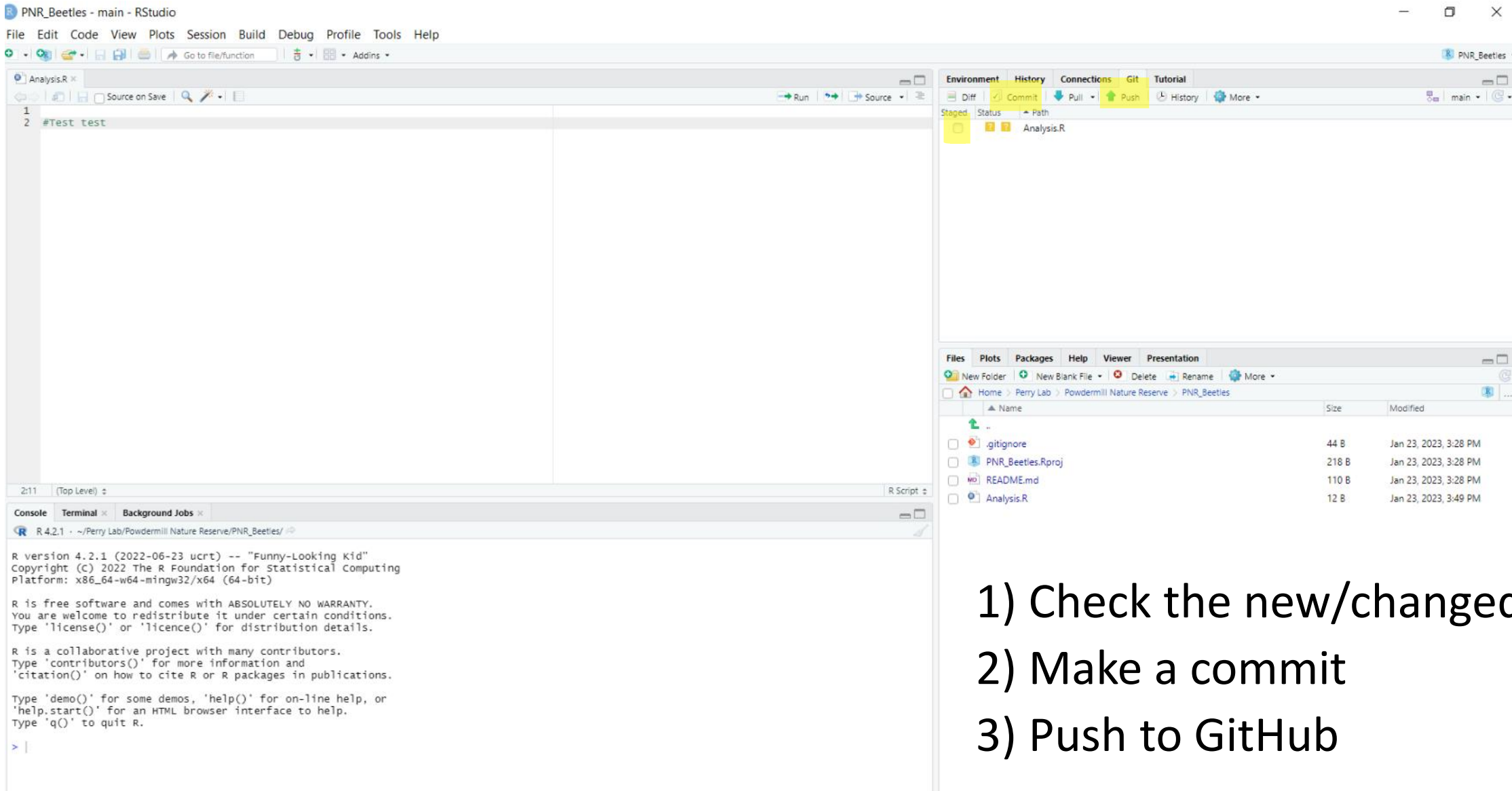
Push changes to your repository on GitHub




Link your newly created GitHub repository with R




Create a new r script and add to your repository





New R files now in GitHub repository

 kiperry / **PNR_Beetles** Public

[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

 main ▾


 1 branch


 0 tags





[Go to file](#)

[Add file ▾](#)


[Code ▾](#)

 kiperry added r script

2ce02bf now  4 commits

 .gitignore	added R project	9 minutes ago
 Analysis.R	added r script	now
 PNR_Beetles.Rproj	added R project	9 minutes ago
 README.md	Update README.md	32 minutes ago

README.md



PNR_Beetles

Data and analysis code associated with ground beetle projects at Powdermill Nature Reserve.

Review changes in your files over time

Version control that documents development history over time

The screenshot displays the RStudio interface with the 'Review Changes' window open. The window shows a list of commits and a detailed view of the current commit.

Commits 1-5 of 5

Subject	Author	Date (UTC)	SHA
HEAD -> refs/heads/main origin/main origin/HEAD updated code	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	974b0cbf
added r script	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	2ce02bf9
added R project	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	3124a221
Update README.md	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	c9dde66
Initial commit	Kayla I Perry <kiperry1488@gmail.com>	2023-01-23	c5f2a4c6

Commit Details:

- SHA: 974b0cbfee447179394fc7ca8a7143dd34623261
- Author: Kayla I Perry <kiperry1488@gmail.com>
- Date (UTC): 2023-01-23 20:55
- Subject: updated code
- Parent: 2ce02bf96a3753219aaab7e31664b82ba783fd0b

Analysis.R

```
@@ -1,2 +1,4 @@
1 1
2  #Test test
   No newline at end of file
3  #Test test
4  #another update
   No newline at end of file
```

The right pane shows the 'Git' tab with the 'History' sub-tab selected. It displays the commit history and the current file path: 'Perry Lab > Powdermill Nature Reserve > PNR_Beetles'. The file list shows the following files and their sizes and modification times:

Name	Size	Modified
.gitignore	44 B	Jan 23, 2023, 3:28 PM
PNR_Beetles.Rproj	218 B	Jan 23, 2023, 3:28 PM
README.md	110 B	Jan 23, 2023, 3:28 PM
Analysis.R	31 B	Jan 23, 2023, 3:55 PM

If a collaborator is added to your repository....

Start by pulling changes from the online repository

