

# Intro to git and GitHub

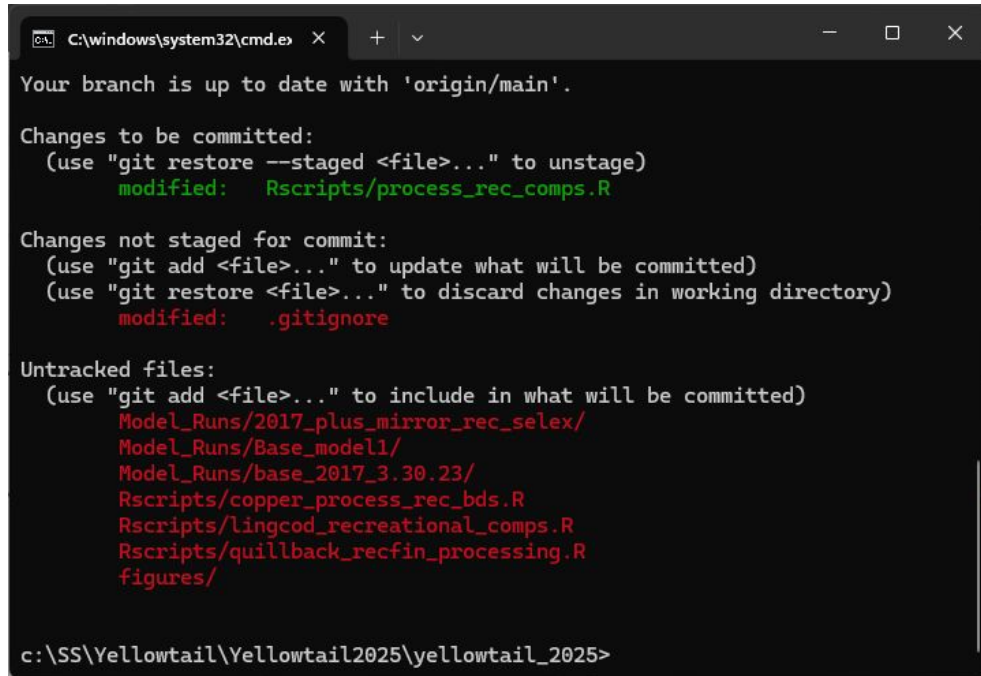
FISH 576, Winter 2025, Week 1

# Intro

- There are many different tools for interacting with git and GitHub, making it slightly harder for folks to learn from each other
- The tools and overall framework take time to learn
- Many of you are already really familiar with these tools
- Others may just be getting started
- We can all learn together and help each other
- Have patience

# git

- Git is an open-source version control system that keeps track of changes to files
- Files are organized by repository (“repo”)
- Has become the standard system used by almost all software developers
- Command-line interface is really powerful but can be harder to learn than other tools
- First released in 2005



```
C:\windows\system32\cmd.exe x + v
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   Rscripts/process_rec_comps.R

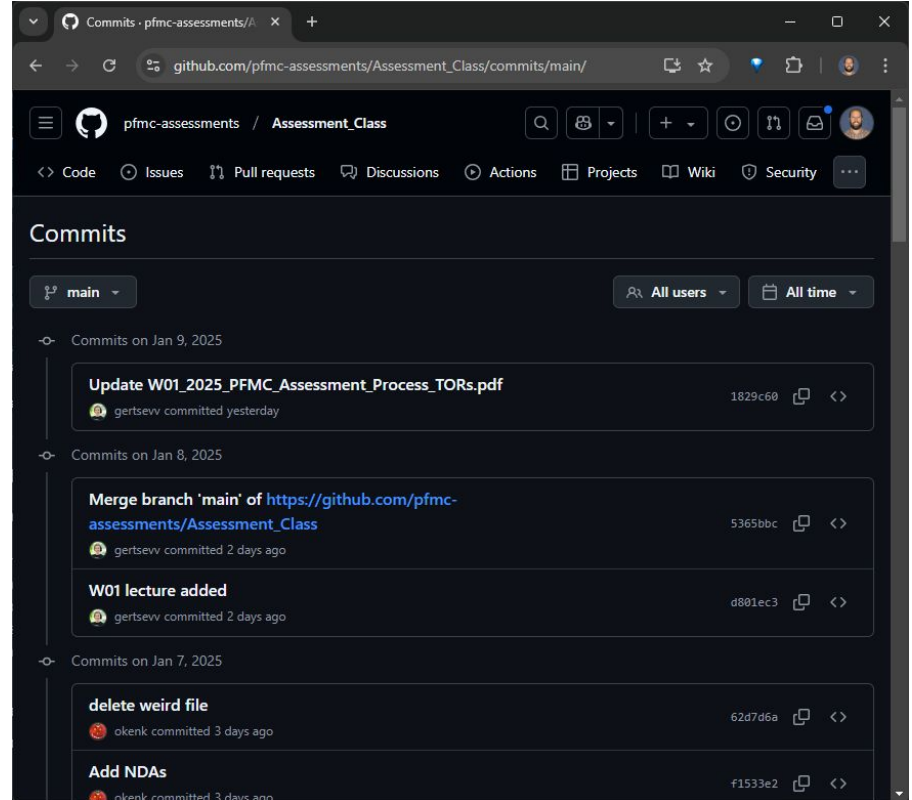
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   .gitignore

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Model_Runs/2017_plus_mirror_rec_selex/
        Model_Runs/Base_model1/
        Model_Runs/base_2017_3.30.23/
        Rscripts/copper_process_rec_bds.R
        Rscripts/lingcod_recreational_comps.R
        Rscripts/quillback_recfin_processing.R
        figures/

c:\SS\Yellowtail\Yellowtail2025\yellowtail_2025>
```

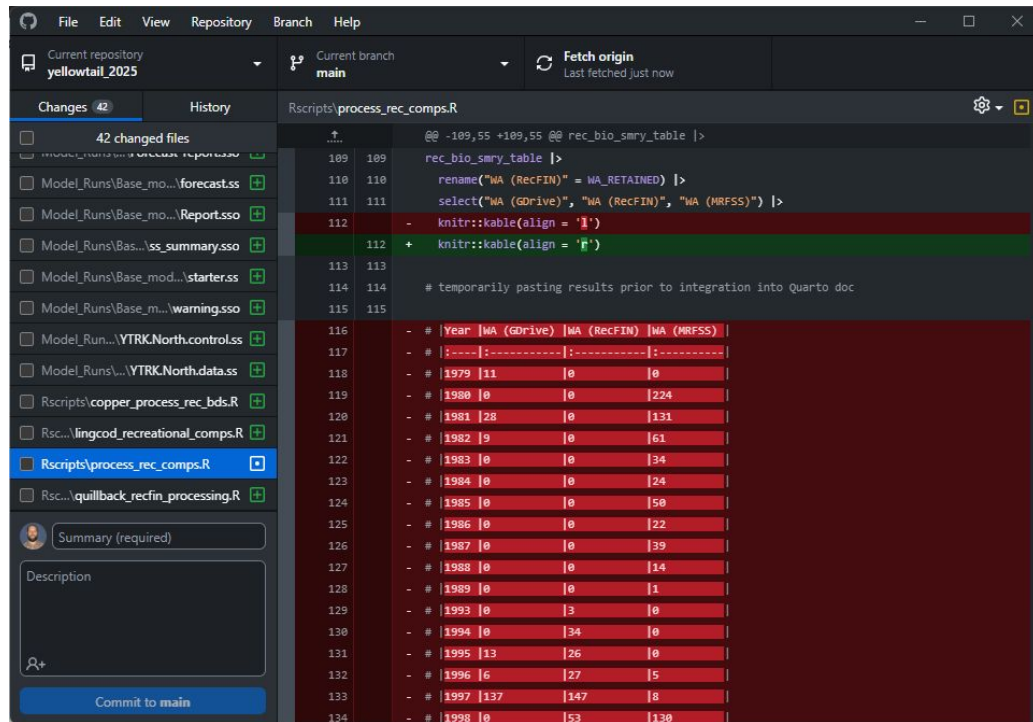
# GitHub

- Developer platform that hosts git repositories
- Has many powerful tools for interacting with the git repositories as well as providing issue tracking, forums, etc.
- Hosts over 400 million repos used by over 100 million developers
- Founded in 2008, part of Microsoft since 2018



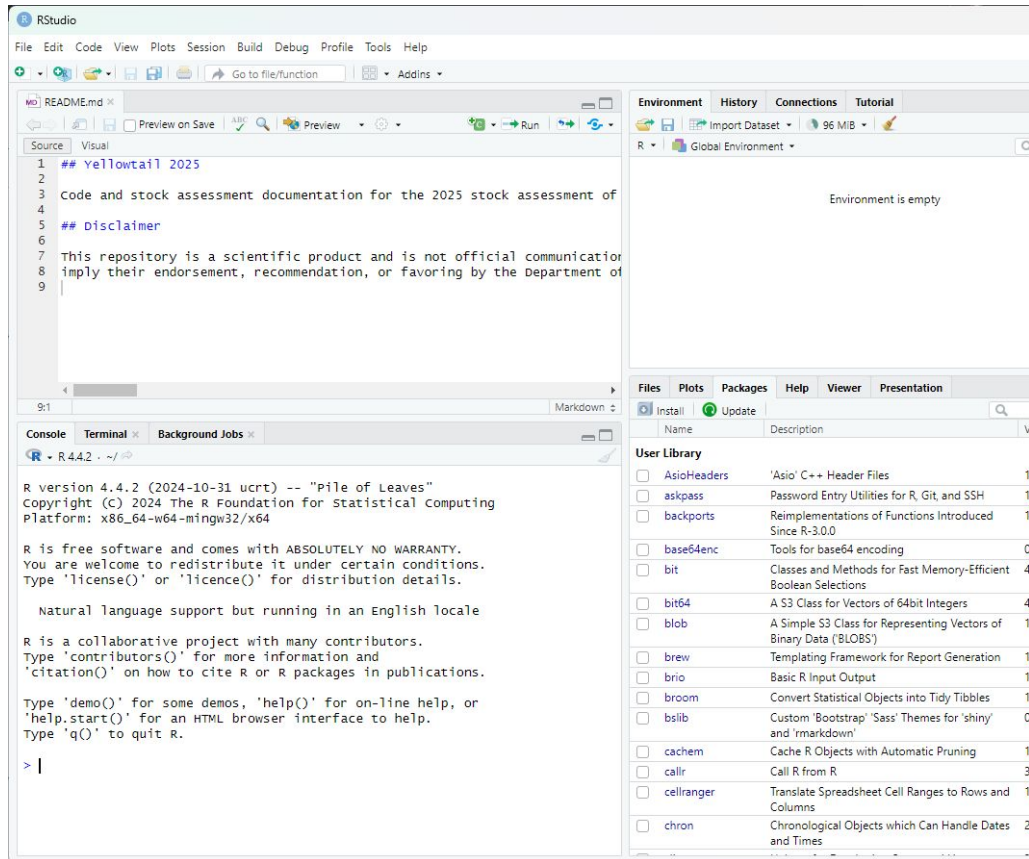
# GitHub Desktop

- Desktop client created by GitHub
- Easy way to commit, push, and pull changes to/from GitHub
- Needs to be paired with any text editor of your choice



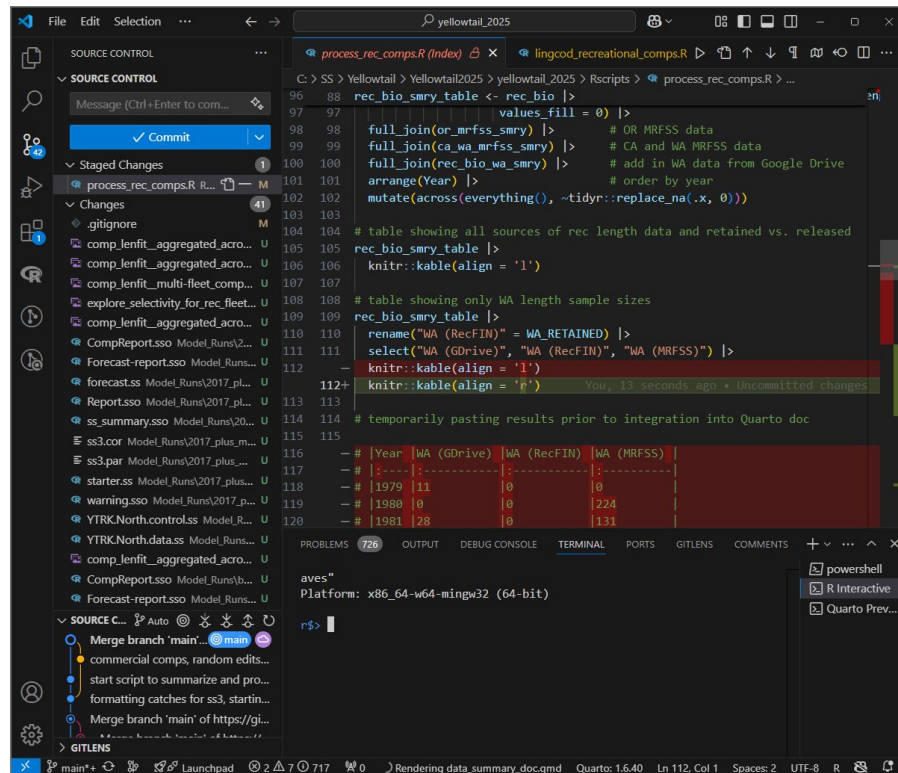
# RStudio IDE

- Integrated Development Environment which is great for working with R
- Has git integration
- First released in 2011
- Developed by Posit PBC



# Visual Studio Code (VS Code)

- Integrated development environment that works well with many languages
- Has git integration
- First released in 2015
- Developed by Microsoft



# General guidance

- Choose whatever tools sound good to you
- Find more experienced users who can support you
- Try multiple options and be open to new ideas
- Have patience