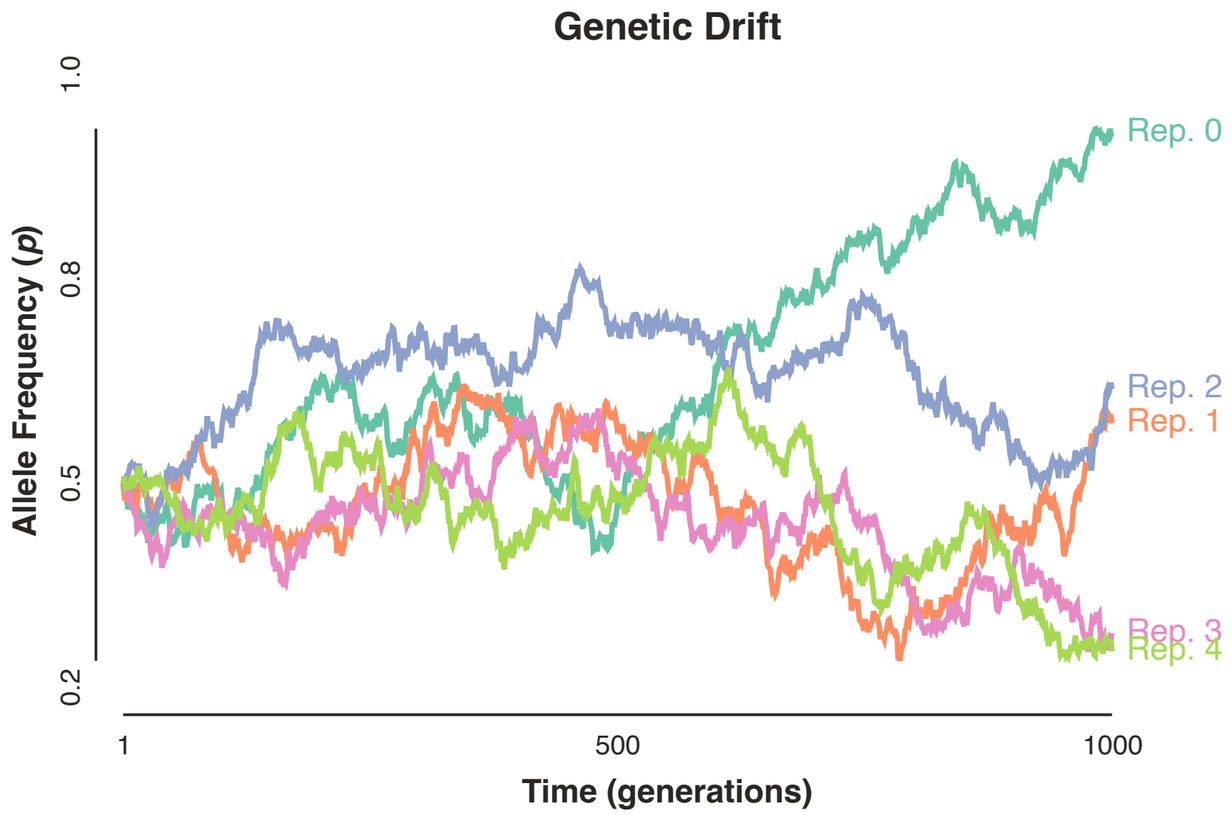
BIOL 1435

Course Instructor: Dave Peede (he/him/his)

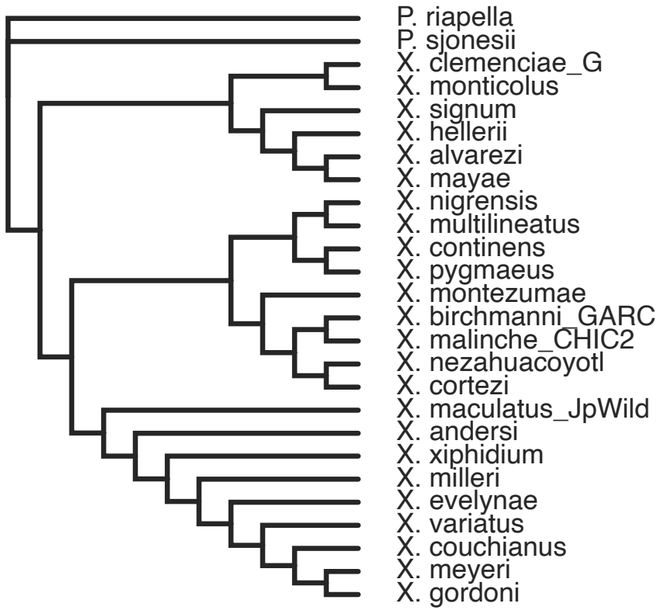
Meeting Times: Tu/Thu 2:30 pm – 3:50 pm

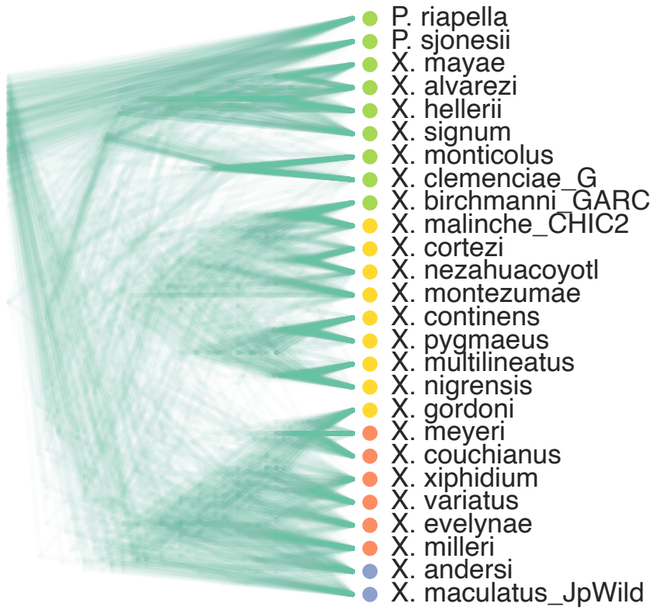
This semester we will learn about...

Evolutionary Genetics



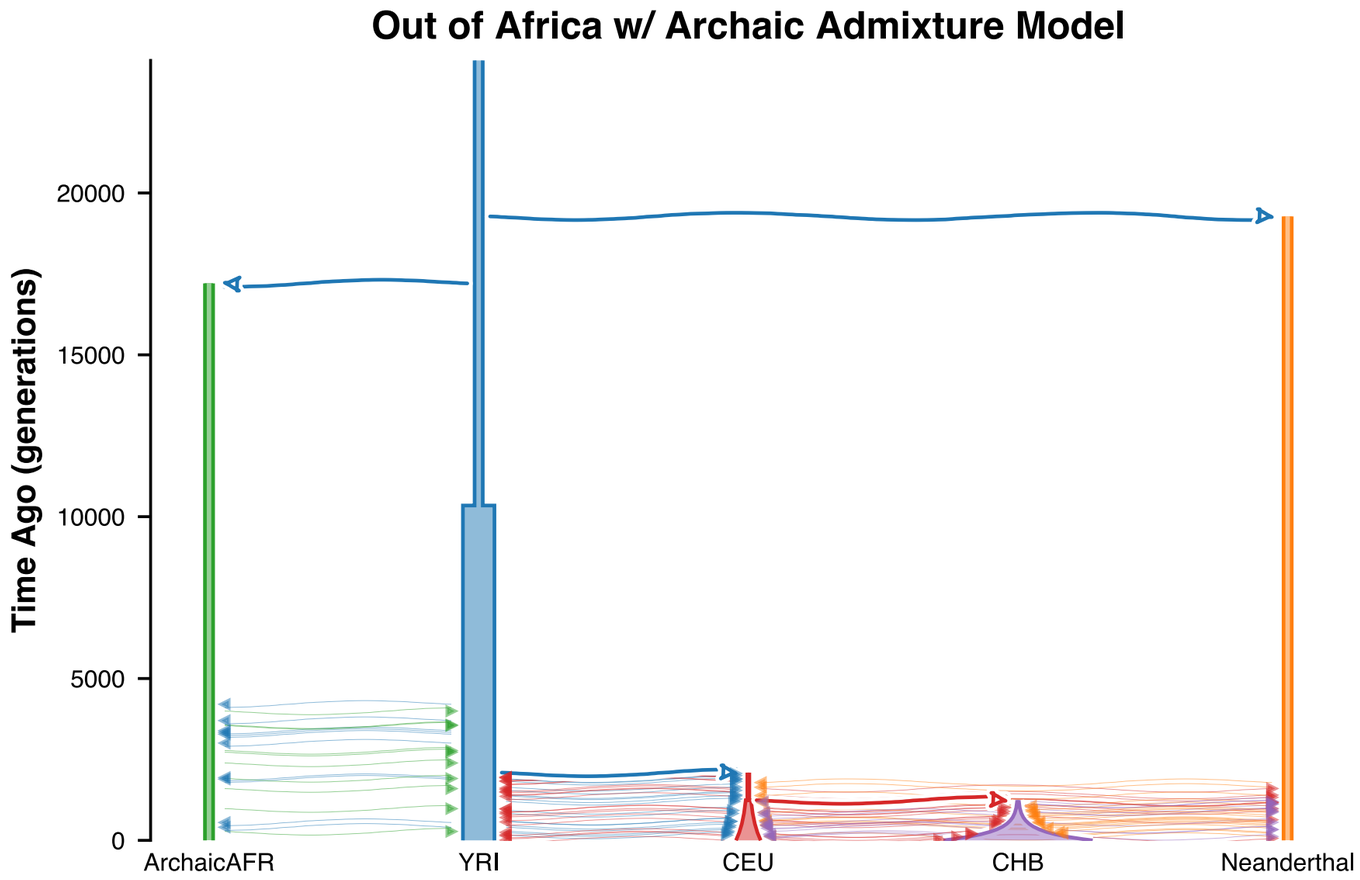
Coalescent Theory & Tree-Thinking[1]





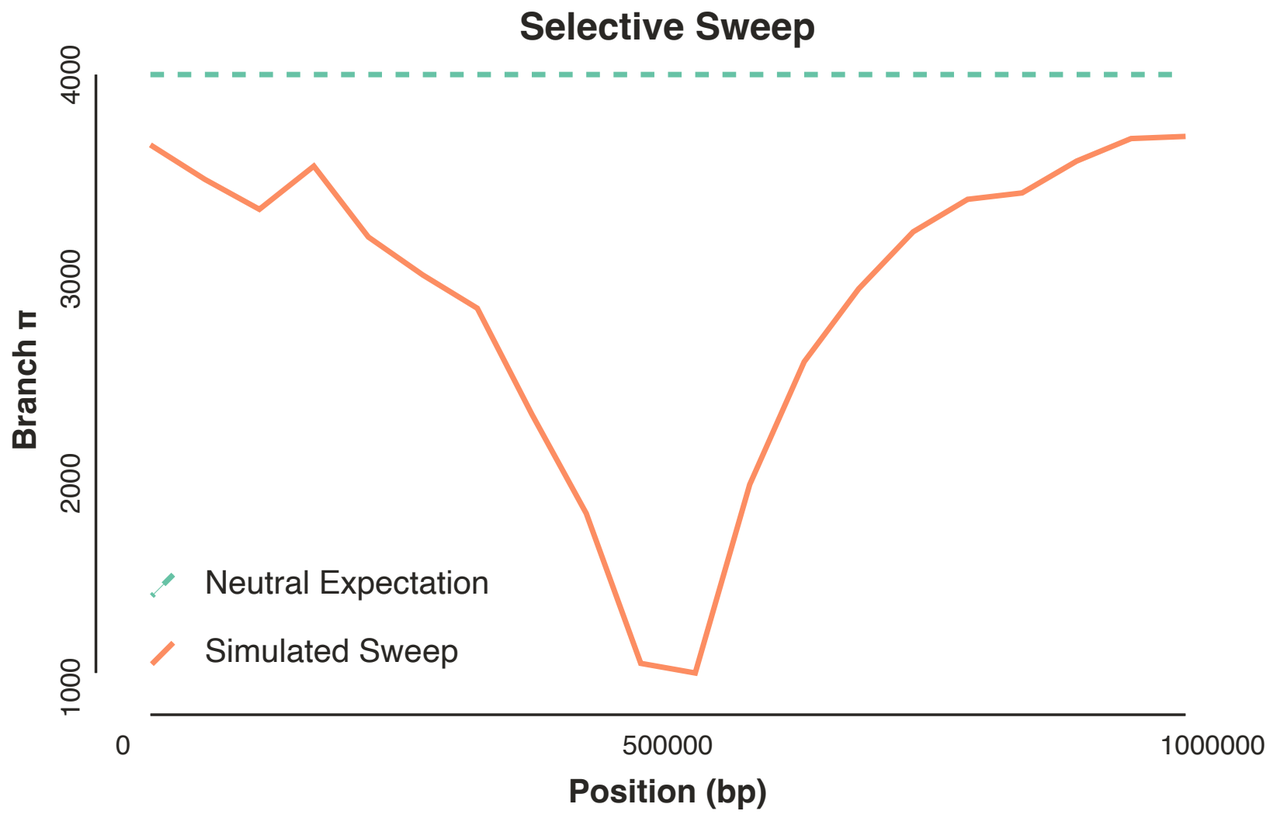
1. Data from: Cui et al., 2013

Population Differentiation & Demography[1]



1. Demographic model from: Ragsdale & Gravel, 2019

Recombination & Selection



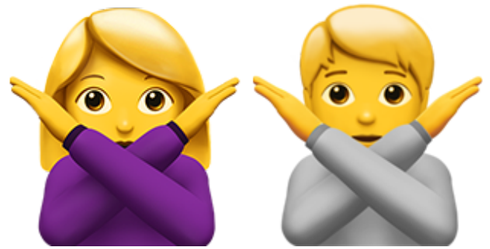
Icebreaker 

Syllabus


Dear Kate,
Here's to the crazy ones. The
The troublemakers. The round
holes. The ones who see things
not fond of rules. And they have
status quo. You can quote them,
glorify or vilify them. About the
do is ignore them. Because they
They push the human race forward. And while some
may see them as the crazy ones, we see genius.
Because the people who are crazy enough to think
they can change the world, are the ones who do.
Take care.
John Appleseed

JupyterHub Etiquette

https://biol1435.jupyter.brown.edu

Do not load anything to JupyterHub unless instructed 

Save your work early and often 

For assignments you *may* want to download your work 😰

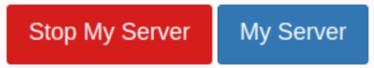
Always shut down your sever

Shutting Down Server

Shutting Down Your Server

Once you are done working, we recommend you manually close down your JupyterHub server by using the JupyterHub Control Panel. This will ensure your session is safely shutdown and the resources you were using are released back to the hub.

1. File > Hub Control Panel
2. Click **Stop My Server**.



Stop My Server will halt any kernels and logout.

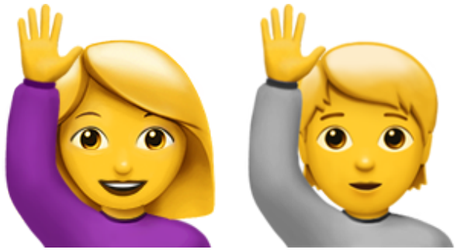
This method is highly recommended as it stores the state of the machine prior to booting down. This means that the next time you connect to your server, any notebooks running will be automatically resumed.

Alternatively, if your server is timed out due to inactivity (ie: simply walking away from your live server), we cannot guarantee automatic notebook booting upon your next login.

> Manually shutting down your sever is the recommended best practice procedure for when you are done working on your server.

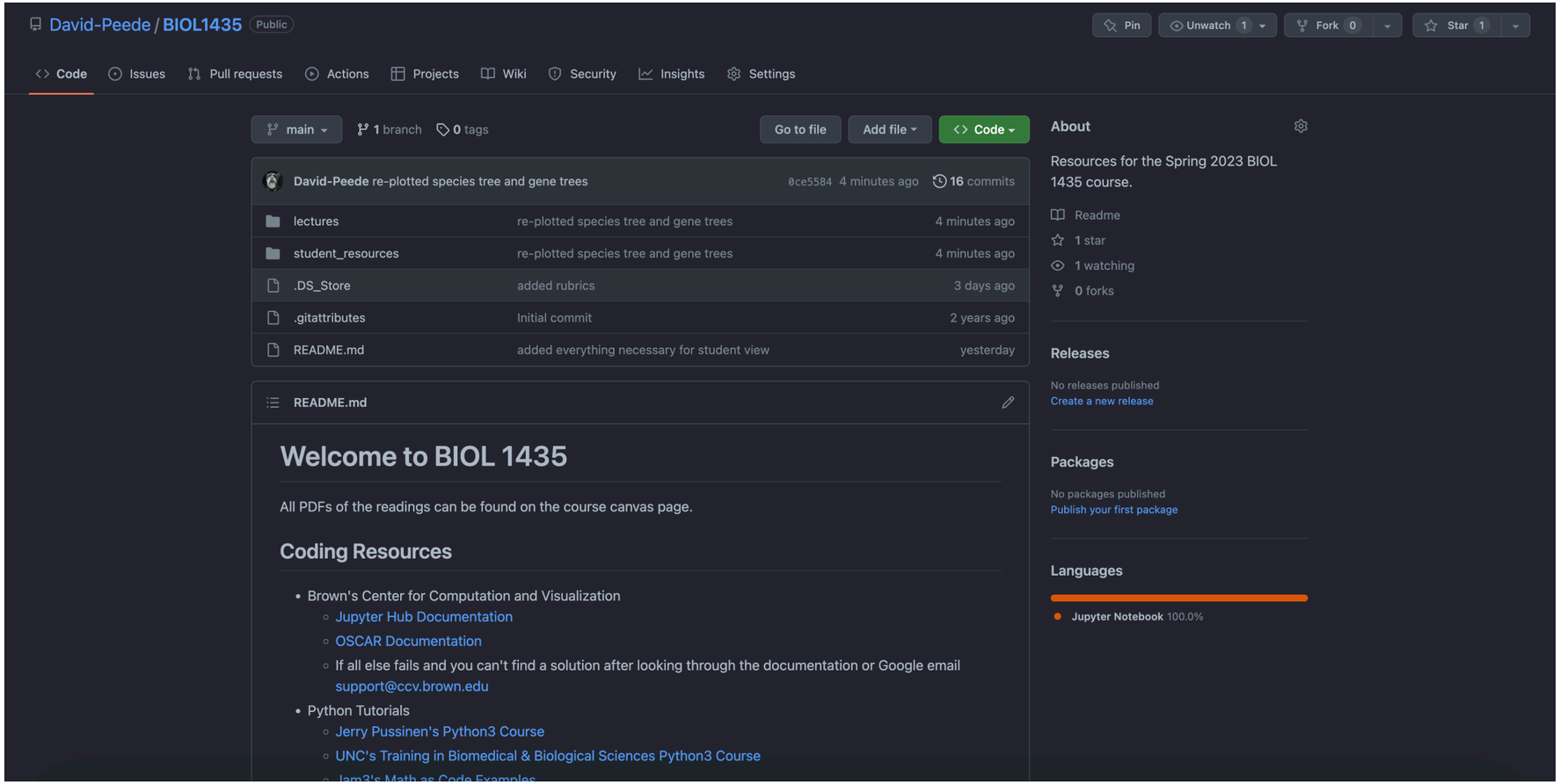
How to be successful in BIOL 1435 

Do the readings 

Ask questions 

Follow the rubrics

Look at Dave's coding resources



David-Peede re-plotted species tree and gene trees — Latest commit 0ce5584 5 minutes ago History

1 contributor

1.43 MB Download

26JAN23 Lecture Code

Module: Introduction to BIOL 1435 & Evolutionary Genetics
Topic: Course overview and evolution refresher.

In [1]:

```
# Import modules.
import demes
import demesdraw
import matplotlib
from matplotlib import pyplot as plt
import msprime
import numpy as np
import toyplot
import toyplot.svg
import toytree
# Print versions.
print('demes', demes.__version__)
print('demesdraw', demesdraw.__version__)
print('matplotlib', matplotlib.__version__)
print('msprime', msprime.__version__)
print('numpy', np.__version__)
print('toyplot', toyplot.__version__)
print('toytree', toyplot.__version__)
```

```
demes 0.2.2
demesdraw 0.3.1
matplotlib 3.6.3
msprime 1.2.0
```

Exit Ticket ⚠️:
https://forms.gle/anDi6iTCxMnNzQFs7

JupyterHub Etiquette

1. When you get into class please log on
2. Do not upload anything to JupyterHub
3. Save early and often
4. For assignments you *may* want to download your work
5. Always shut down your server

How to be successful in this course

1. Do the readings
2. Ask questions
3. Start assignments early
4. Follow the rubrics
5. Look at Dave's code