OSOS 2019 Participant Guide

August 30th-September 1st 2019, ILSB Auditorium, TAMU Main campus, College Station

Organized by the TAMU Ecology & Evolutionary Biology Program

Emergency Contacts: Nick Jacobsen, Coordinator (njacobsen@tamu.edu); Giri Athrey, Outreach Chair (giri.athrey@tamu.edu).

General notes about location and event

Thank you for registering for the 2019 edition of the Open Source Open Science workshop. The entire workshop will be held at the ILSB Auditorium. Meals will not be provided by the EEB program, but light refreshments will be provided. This document gives an overview of the program, as well as a guide to preparing your computer to participate and maximize learning at the workshop. Two sections are outlined below: the "Before workshop" and "During workshop" resources. Please read these sections carefully.

Schedule at a glance - total nine sessions.

Friday, August 30th 2019

Session 1: 5:00-6:30pm Danielle Walkup, Intro to R

Session 2: 6:45-8:00pm Danielle Walkup, Intro to R contd.

End of Friday sessions

Saturday, August 31st 2019

Session 3: 9:00-10:30am Carl Hjelmen, Statistical analyses with R

Session 4: 10:45-12:15pm Pierre Lesne, Graphics using R base

LUNCH BREAK

Session 5: 1:30-3:00pm Adrian Castellanos, Intro to graphics with ggplot2

Session 6: 3:15-4:45pm Adrian Castellanos, Intro to tidyverse

End of Saturday sessions

Sunday, September 1st 2019

Session 7: 9:00-10:30am Zach Hancock, Phylogenetics in R and BEAST

Session 8: 10:45-12:15pm Mark Hoang, Intro to Linux

LUNCH BREAK

Session 9: 1:30-3:00pm Michael Dickens, Intro to HPRC at TAMU

End of OSOS 2019

Preparing your computer before attending OSOS

All the sessions are designed to be practical, hands-on activities. Therefore, you are requested to bring your own laptop computer. All the workshop sessions will utilize open source tools (R, Unix) and hence, have cross platform compatibility. That said, you need to have the R statistical platform installed on your computer.

Download and test before start of OSOS

Download R: Go to the website (www.r-project.org) and select the link "download R" and you will be sent to a site with a list of CRAN Mirrors. Select the mirror nearest to you and you will be sent to the download page. Select the download link that is appropriate for your computer platform and follow the instructions on the following web pages. After you download the appropriate package, make sure to install R on your computer, by unpacking the download archive. Once installed, clicking the 'R' logo will open the console.

Download RStudio: RStudio is an Integrated Development Environment (IDE) that packages file managing, code editing, and visualizer built in with the console. Go to the website (www.rstudio.com/products/rstudio/download/) and download RStudio Desktop with the Open Source License for free. Be sure to select the download link that matches your computer platform and install the program after download.

Required for Session 7

BEAST2: www.beast2.org

TRACER: github.com/beast-dev/tracer

Resources while attending the workshop

Session Specific Data and Code Downloads

Please download the datafiles and code for each of the sessions before joining the session. While many of the session specific downloads are available right now, the missing ones will be available by Friday, August 30th. Session participants will be led through the installation of necessary packages at the beginning of the respective sessions. *Please note: Session specific download links are also directly accessible on the OSOS website at eeb.tamu.edu/open-source-open-science-workshop-2019/*

Sessions 1 and 2 (Friday PM): Download Here

Session 3 (Saturday AM): Download Here

Session 4 (Saturday mid-AM): Download Here

Sessions 5 and 6 (Saturday PM): Download Here

Session 7 (Sunday AM): Download Here

Session 8 (Sunday PM): Download Here

Session 9 (Sunday PM): Download Here

Seeking help when you hit trouble

In addition to the main instructor leading the sessions, there will be helpers floating around to help participants troubleshoot minor issues. We have a large number of participants registered and to ensure that the session moves smoothly, please pay attention to the most common sources of errors in coding. The most common issues to expect in these workshops are:

1. Spelling and capitalization errors in code
2. Extra spaces or characters in code
3. missing quotes, parentheses, or square brackets in code.

If none of these explain your errors, please seek help by flagging one of the helpers. The 'helper' system at the workshop uses post-it notes that will be used to flag down helpers. Learners flag their current status with post-it notes (in two colors, to indicate 'things are going fine' or 'things are on fire'), and floating helpers come over to assist them and get them back on track. More details about this will be provided at the workshop. The organizers will provide the post-it notes for use by participants.

Questions may be directed to contacts listed at the top of the document.