

Preparations for ECSA 56 Ecological Network Analysis Tutorial

Dear Tutorial Participant,

We are looking forward to meeting you at ECSA 56! Thank you for enrolling in the Ecological Network Analysis Tutorial. Our time together will be short (~1 hour). To ensure that you and the other participants get as much out of this tutorial as possible, there are a number of things you can do to prepare for our meeting.

1. Install R onto the laptop you will use for the tutorial.
 - a. Download and install R from the Comprehensive R Archival Network (<https://cran.r-project.org>).
 - b. Many R users find it useful to also install R Studio (<https://www.rstudio.com>), which is an integrated development environment that makes working with R a bit easier.
 - c. We will not have time to teach how to program in R. If you are new to using R, I recommend working through this excellent “[Introduction to R for Ecological Modelling](#)” initially written by Stephen Ellner and modified by Ben Bolker.

2. Install the enaR package
 - a. We will use the development version of the enaR package for this tutorial. Please follow the instructions on this webpage to install this software (<https://github.com/SEELab/enaR/wiki/Installing-the-Development-version-of-enaR>).
 - b. Verify that the software is installed correctly by typing the following at the command line:

```
> library(enaR) # this will load the library (you should see some information print to the screen)
> help(enaFlow) # this should bring up the help file for the enaFlow() function. If this does not, then the R package is not properly installed.
```

3. Read background reading (posted on tutorial website at http://people.uncw.edu/borretts/ENA_ecsa2016.html).
 - a. Borrett, SR, Christian, RR, and Ulanowicz RE. 2012. *Network Ecology (Revised)*. In: El-Shaarawi, AH and Piegorsch, WH

(Eds.). Encyclopedia of Environmetrics (2nd edition). John Wiley and Sons: Chichester, pp. 1767-1772.

- b. Borrett, SR and Lau, MK. 2014. enaR: An R package for Ecosystem Network Analysis. *Methods in Ecology and Evolution* 5:1206–1213.
- c. Borrett, SR. [Introduction to Networks & Network Ecology](#), Lecture Notes, ENA Tutorial, International Society for Ecological Modelling 2016.