<u>Title</u>

Going Wild in R: Introduction to the basics of R for wildlife students and professionals with Data Carpentry including data analysis and visualization

<u>Instructors</u>

Matt Boone, Data Team Lead, Software Engineer III, Idaho Department of Fish and Game

Robert Ritson, Associate Research Scientist, University of Wyoming Cooperative Research Unit and Idaho Department of Fish and Game

<u>Description</u>

RStudio is a powerful open-source statistical computing software that can enhance the lives of wildlife students and professionals. However, new users are often intimidated by the learning curve associated with studying a programming language and novices tend to lose interest if they do not benefit from their new skills. This introduction to R is designed by Data Carpentry for participants with no programming experience and assumes no prior knowledge of R or RStudio. The first half of the workshop will begin with the basics of R syntax, the RStudio interface, and then introduce importing and manipulating data from CSV files as well as calculating summary statistics. The second half will introduce plotting and visualizing data as well as a brief synopsis on visualizing geographic and spatial data. The anticipated duration is approximately 8 hours, including 4 hours for the basics of R and data manipulation followed by another 4 hours for visualizing data.

<u>Objectives</u>

- Load and manipulate data using RStudio
- Perform basic summary statistics with data
- Plot and visualize data
- Plot and visualize spatial data

<u>Agenda</u>

Content	Time	Duration
Introductions, Downloading, and Installing R	8:00-8:30	30 min
Introduction to the basics of R	8:30-10:15	90 min
Break	10:15-10:30	15 min
Loading Data	10:30-12:00	90 min
Lunch	12:00-1:00	60 min
Manipulating Data with `dplyr`	1:00-2:00	60 min
Visualizing Data with `ggplot2`	2:00-3:00	60 min
Break	3:00-3:15	15 min
Visualizing Spatial Data with `sf` and `terra`	3:15-5:00	105 min