Making figures for RoM in R

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Introduction

The main argument for using R to create RoM figures is to standardize figures across species and to do so while limiting repetive work. This is a work in progress so any feedback on this document or the figures are highly appreciated!

This document contains instructions and code for creating the four types of basic plots that will be used in RoM, these will be described in their own sections below. I have chosen data for pike (*Esox lucious*) as an example, because it has all potential data for a RoM species (recreational, multiple areas, error bars etc.). These data have been uploaded on github: https://github.com/maxlindmark/ROM, and below is a piece of code that reads it into your session.

Prerequisitics: 1) R-studio is strongly preferred as it allows you to work in so called projects where you can set a relative working directory. 2) Prepare your data so that it is structured in the same way as the example below.

It is an advantage if you know some Basic R. R-code is text with grey background. You can copy these chunks of code to a new R-script or directly into the console in R-studio.

1. Load libraries

```
rm(list = ls()) # clear the workspace from objects

# Provide package names
pkgs <- c("devtools", "ggplot2", "RCurl", "RCurl", "tidyr", "dplyr", "scales")

# Install packages
#install.packages(pkgs) # remove the hashtag if you already have them installed

# Load all packages
invisible(lapply(pkgs, function(x) require(x, character.only = T, quietly = T)))

# Print package version
x <- devtools::session_info(pkgs = pkgs)
x <- as.data.frame(x$packages)
x <- dplyr::filter(x, package %in% pkgs) %>%
dplyr::select(-`*`, -date, -source) %>%
dplyr::arrange(package)
x
```

```
##    package   version
## 1 devtools    1.13.6
## 2    dplyr     0.7.5
## 3  ggplot2     3.0.0
## 4    RCurl 1.95-4.10
## 5   scales     0.5.0
## 6    tidyr     0.8.1
```

2. Read in data

```
# Go to https://github.com/maxlindmark/ROM to view the data in the browser
dat <- read.csv(text=getURL("https://raw.githubusercontent.com/maxlindmark/ROM/master/pike.csv"))

head(dat, 25)
```

```
## [1] X404..Not.Found
## <0 rows> (or 0-length row.names)
```

```
# Read in the palette we are going to use
pal <- c("#56B4E9", "#009E73", "#F0E442", "#0072B2", "#E69F00", "#D55E00")
```