Assignment4\_Lobsters

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#1. Loading Packages and csv files  
  
library(tidyverse)

## -- Attaching packages ------------------------------------------------------------------------ tidyverse 1.2.1 --

## v ggplot2 3.0.0 v purrr 0.2.5  
## v tibble 1.4.2 v dplyr 0.7.6  
## v tidyr 0.8.1 v stringr 1.3.1  
## v readr 1.1.1 v forcats 0.3.0

## -- Conflicts --------------------------------------------------------------------------- tidyverse\_conflicts() --  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

library(RColorBrewer)  
library(ggpubr)

## Loading required package: magrittr

##   
## Attaching package: 'magrittr'

## The following object is masked from 'package:purrr':  
##   
## set\_names

## The following object is masked from 'package:tidyr':  
##   
## extract

library(knitr)  
library(effsize)  
library(pwr)  
library(extrafont)

## Registering fonts with R

library(plotly)

##   
## Attaching package: 'plotly'

## The following object is masked from 'package:ggplot2':  
##   
## last\_plot

## The following object is masked from 'package:stats':  
##   
## filter

## The following object is masked from 'package:graphics':  
##   
## layout

library(ggrepel)  
library(kableExtra)  
library(onewaytests)  
library(car)

## Loading required package: carData

##   
## Attaching package: 'car'

## The following object is masked from 'package:dplyr':  
##   
## recode

## The following object is masked from 'package:purrr':  
##   
## some

library(vcdExtra) #for getting the data into case format

## Loading required package: vcd

## Loading required package: grid

## Loading required package: gnm

##   
## Attaching package: 'vcdExtra'

## The following object is masked from 'package:carData':  
##   
## Burt

## The following object is masked from 'package:plotly':  
##   
## summarise

## The following object is masked from 'package:dplyr':  
##   
## summarise

lobster\_size <- read\_csv("lobster\_size\_abundance.csv")

## Parsed with column specification:  
## cols(  
## YEAR = col\_integer(),  
## MONTH = col\_integer(),  
## DATE = col\_character(),  
## SITE = col\_character(),  
## SBC\_LTER\_TRANSECT = col\_integer(),  
## LOBSTER\_TRANSECT = col\_character(),  
## SIZE = col\_integer(),  
## COUNT = col\_integer()  
## )

lobster\_traps <- read\_csv("lobster\_traps.csv")

## Parsed with column specification:  
## cols(  
## YEAR = col\_integer(),  
## MONTH = col\_integer(),  
## DATE = col\_character(),  
## FISHING\_SEASON = col\_character(),  
## SITE = col\_character(),  
## SWATH\_START = col\_character(),  
## SWATH\_END = col\_character(),  
## TRAPS = col\_integer(),  
## OBSERVER = col\_integer(),  
## NOTES = col\_character()  
## )