Assignment 4

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library(tidyverse)

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

## v ggplot2 3.1.0 v purrr 0.2.5  
## v tibble 1.4.2 v dplyr 0.7.7  
## v tidyr 0.8.2 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(tidyr)  
library(vcdExtra)

## Loading required package: vcd

## Loading required package: grid

## Loading required package: gnm

##   
## Attaching package: 'vcdExtra'

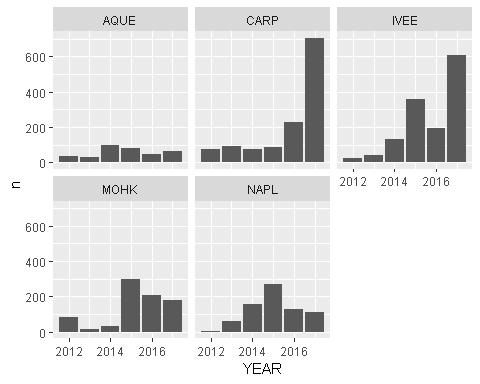
## The following object is masked from 'package:dplyr':  
##   
## summarise

1. Lobster abundance and fishing pressure (2012 - 2017)

# Create five graphs of each location with years on the x-axis and count of lobsters on y-axis  
  
abundance\_summary <- lobster\_abundance %>%   
 group\_by(SITE) %>%   
 count(YEAR) # Count how many observations there are in each year (data is grouped by site)  
abundance\_summary

## # A tibble: 30 x 3  
## # Groups: SITE [5]  
## SITE YEAR n  
## <fct> <int> <int>  
## 1 AQUE 2012 38  
## 2 AQUE 2013 32  
## 3 AQUE 2014 100  
## 4 AQUE 2015 83  
## 5 AQUE 2016 48  
## 6 AQUE 2017 67  
## 7 CARP 2012 78  
## 8 CARP 2013 93  
## 9 CARP 2014 78  
## 10 CARP 2015 90  
## # ... with 20 more rows

abundance\_col <- ggplot(abundance\_summary, aes(x = YEAR, y = n)) +  
 geom\_col() +  
 facet\_wrap(~ SITE)  
abundance\_col



# Create graphs of trap buoys versus year at each site  
  
trap\_summary <- lobster\_traps %>%   
 group\_by(SITE) %>%   
 count(YEAR) # Count how many observations there are in each year (data is grouped by site)  
trap\_summary

## # A tibble: 30 x 3  
## # Groups: SITE [5]  
## SITE YEAR n  
## <chr> <int> <int>  
## 1 AQUE 2012 110  
## 2 AQUE 2013 176  
## 3 AQUE 2014 176  
## 4 AQUE 2015 132  
## 5 AQUE 2016 176  
## 6 AQUE 2017 66  
## 7 CARP 2012 100  
## 8 CARP 2013 166  
## 9 CARP 2014 176  
## 10 CARP 2015 132  
## # ... with 20 more rows

trap\_col <- ggplot(trap\_summary, aes(x = YEAR, y = n)) +  
 geom\_col() +  
 facet\_wrap(~ SITE)  
trap\_col

