pivot\_lobsters

Yevhen Barshchevskyi

#install.packages('skimr')  
#install.packages('kableExtra')  
library(tidyverse)

## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --

## v ggplot2 3.3.5 v purrr 0.3.4  
## v tibble 3.1.5 v dplyr 1.0.7  
## v tidyr 1.1.4 v stringr 1.4.0  
## v readr 2.0.2 v forcats 0.5.1

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

library(readxl)

## Warning: package 'readxl' was built under R version 4.1.2

library(here)

## Warning: package 'here' was built under R version 4.1.2

## here() starts at C:/Users/YBarshchevskyi/OneDrive - International Research and Exchanges Board/Documents/GitHub\_repos/r-workshop

library(skimr)

## Warning: package 'skimr' was built under R version 4.1.2

library(kableExtra)

## Warning: package 'kableExtra' was built under R version 4.1.2

##   
## Attaching package: 'kableExtra'

## The following object is masked from 'package:dplyr':  
##   
## group\_rows

## Reading lobsters data with skip rows  
  
lobsters <- read\_xlsx(here("data/lobsters.xlsx"), skip=4)

## Exploring data with skimr  
  
skim(lobsters)

Data summary

Name

lobsters

Number of rows

2893

Number of columns

7

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Column type frequency:

character

3

numeric

4

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Group variables

None

**Variable type: character**

skim\_variable

n\_missing

complete\_rate

min

max

empty

n\_unique

whitespace

date

0

1

6

7

0

28

0

site

0

1

4

4

0

5

0

replicate

0

1

1

1

0

4

0

**Variable type: numeric**

skim\_variable

n\_missing

complete\_rate

mean

sd

p0

p25

p50

p75

p100

hist

year

0

1

2014.70

1.19

2012

2014

2015

2016

2016

<U+2582><U+2582><U+2583><U+2587><U+2586>

month

0

1

8.04

0.19

8

8

8

8

9

<U+2587><U+2581><U+2581><U+2581><U+2581>

transect

0

1

3.72

2.30

1

2

3

5

9

<U+2587><U+2585><U+2583><U+2582><U+2582>

size\_mm

5

1

71.38

14.75

18

62

72

81

165

<U+2581><U+2587><U+2586><U+2581><U+2581>

##PivotTables  
  
siteyear\_summary <- lobsters %>%  
 group\_by(site, year) %>%  
 summarize(count\_by\_year=n(),  
 mean\_size\_mm=mean(size\_mm, na.rm=TRUE),  
 sd\_size\_mm=sd(size\_mm, na.rm=TRUE))

## `summarise()` has grouped output by 'site'. You can override using the `.groups` argument.

siteyear\_summary

## # A tibble: 25 x 5  
## # Groups: site [5]  
## site year count\_by\_year mean\_size\_mm sd\_size\_mm  
## <chr> <dbl> <int> <dbl> <dbl>  
## 1 aque 2012 38 71 10.2   
## 2 aque 2013 32 72.1 12.3   
## 3 aque 2014 100 76.9 9.32  
## 4 aque 2015 83 68.5 12.6   
## 5 aque 2016 48 68.7 12.5   
## 6 carp 2012 78 74.4 14.6   
## 7 carp 2013 93 76.6 8.71  
## 8 carp 2014 79 79.1 8.57  
## 9 carp 2015 90 70.7 14.6   
## 10 carp 2016 231 68.9 12.5   
## # ... with 15 more rows

“There are 2893 total lobsters included in this report”