Penguin Analysis

Exploratory analysis of the penguin data set

This report is an assignment of the [Productive R Workflow](#) course.

The goal is to build a Quarto report using a script that loads the [palmerpenguins](#) data set and performs an exploratory analysis.

Since most of the data processing is done in other scripts, we will only load `tidyverse` and `here` in this report.

Data loading

The data is already loaded and prepared in our data folder, as well as some custom functions.

▶ Show the code

Descriptive analytics

Summary of the data

▶ Show the code

```
    species             island          bill_length_mm  bill_depth_mm
 Length:342          Length:342          Min.   :32.10   Min.   :13.10
 Class :character    Class :character    1st Qu.:39.27   1st Qu.:15.57
 Mode  :character    Mode  :character    Median :44.50   Median :17.30
                                         Mean   :43.96   Mean   :17.14
                                         3rd Qu.:48.50   3rd Qu.:18.70
                                         Max.   :59.60   Max.   :21.50
                                         NA's   :2       NA's   :2
 flipper_length_mm  body_mass_g        sex                  year
 Min.   :172.0      Min.   :2700    Length:342          Min.   :2007
 1st Qu.:190.0      1st Qu.:3550    Class :character    1st Qu.:2007
 Median :197.0      Median :4050    Mode  :character    Median :2008
 Mean   :201.0      Mean   :4203                        Mean   :2008
 3rd Qu.:213.2      3rd Qu.:4756                        3rd Qu.:2009
 Max.   :231.0      Max.   :6300                        Max.   :2009
 NA's   :2          NA's   :2
```

Means of the bill length of Adelie species in each island

▶ Show the code
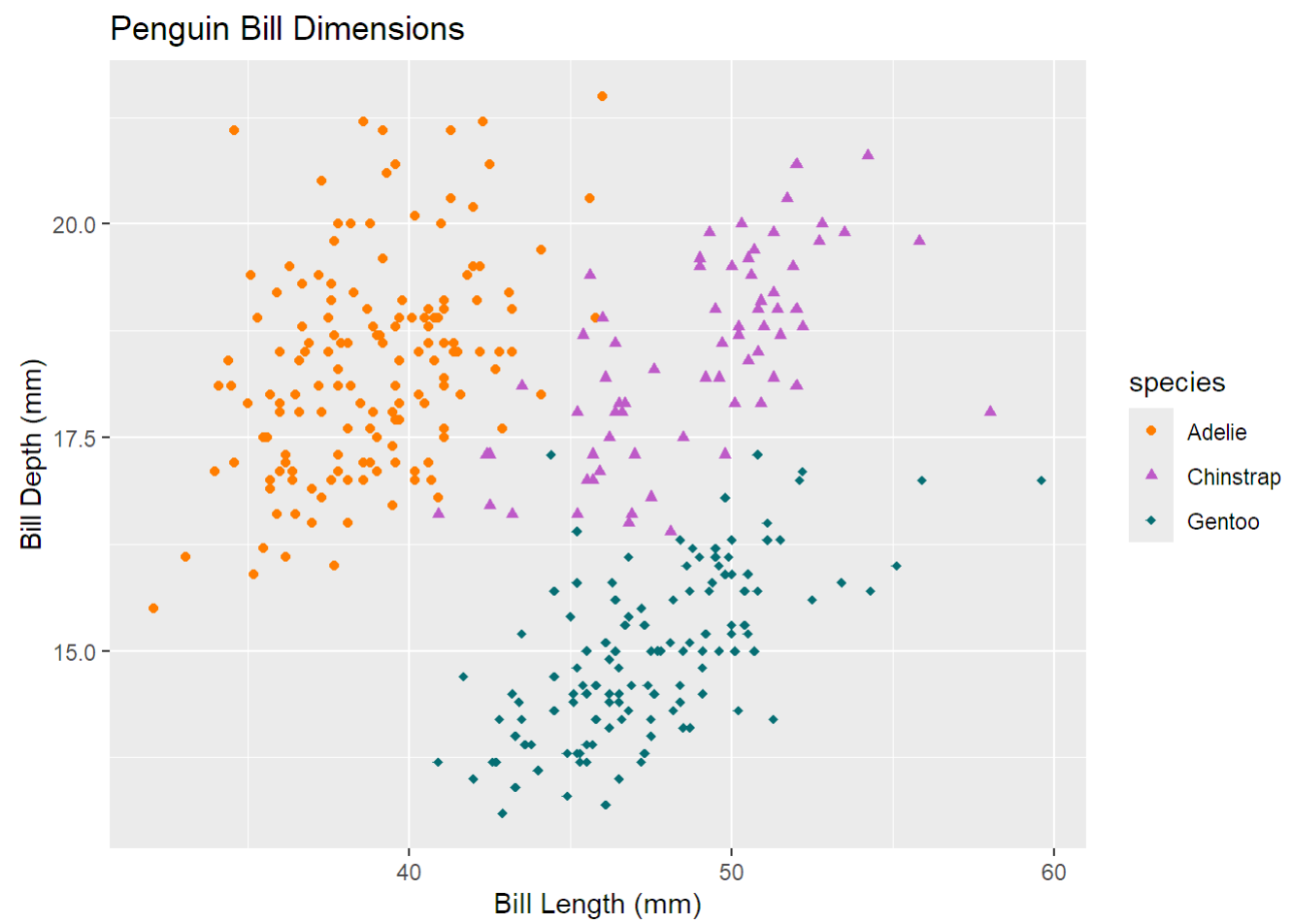
```
# A tibble: 3 × 2
  island    mean_bill_length
  <chr>            <num:.2!>
```

```
1 Biscoe             38.98
2 Dream              38.50
3 Torgersen          39.01
```
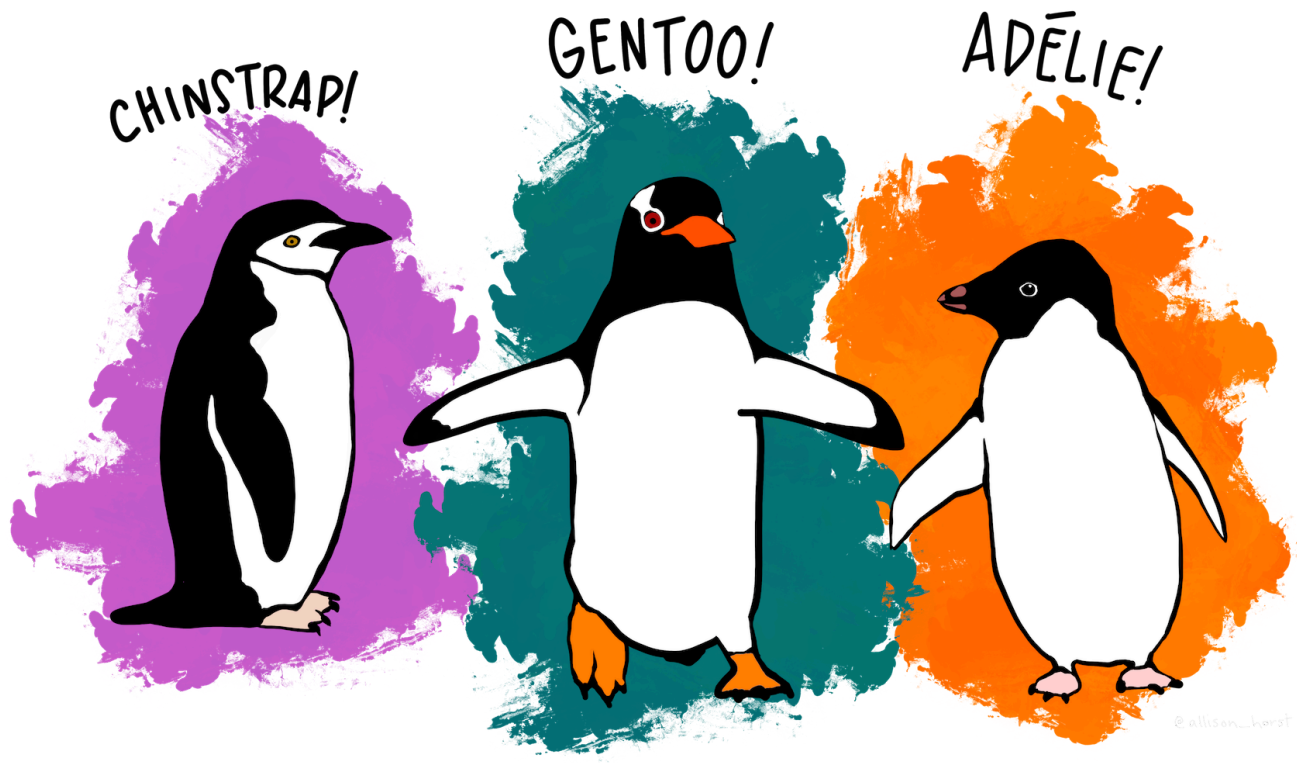
Scatter plot with Bill dimensions (length and depth) by species

▶ Show the code

Data source

CHINSTRAP! GENTOO! ADÉLIE!

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Horst AM, Hill AP, Gorman KB (2020). palmerpenguins: Palmer Archipelago (Antarctica) penguin data. R package version 0.1.0. https://allisonhorst.github.io/palmerpenguins/. doi: 10.5281/zenodo.3960218.