Hello, Penguins!

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Contents

# 1. Introduction

## 1.1 Data

For this analysis we’ll use the penguins dataset from [**palmerpenguins**](https://allisonhorst.github.io/palmerpenguins/articles/intro.html) package.(Gorman, Williams, and Fraser 2014)

library(tidyverse)  
library(ggthemes)  
library(palmerpenguins)  
library(gt)

glimpse(penguins)

Rows: 344  
Columns: 8  
$ species <fct> Adelie, Adelie, Adelie, Adelie, Adelie, Adelie, Adel…  
$ island <fct> Torgersen, Torgersen, Torgersen, Torgersen, Torgerse…  
$ bill\_length\_mm <dbl> 39.1, 39.5, 40.3, NA, 36.7, 39.3, 38.9, 39.2, 34.1, …  
$ bill\_depth\_mm <dbl> 18.7, 17.4, 18.0, NA, 19.3, 20.6, 17.8, 19.6, 18.1, …  
$ flipper\_length\_mm <int> 181, 186, 195, NA, 193, 190, 181, 195, 193, 190, 186…  
$ body\_mass\_g <int> 3750, 3800, 3250, NA, 3450, 3650, 3625, 4675, 3475, …  
$ sex <fct> male, female, female, NA, female, male, female, male…  
$ year <int> 2007, 2007, 2007, 2007, 2007, 2007, 2007, 2007, 2007…

## 1.2 Species

[Figure 1](#fig-bill-dims-species) is a scatter plot of species of penguins.

ggplot(  
 penguins,  
 aes(  
 x = bill\_length\_mm, y = bill\_depth\_mm,  
 color = species, shape = species  
 )  
) +  
 geom\_point() +  
 theme\_minimal() +  
 scale\_color\_colorblind() +  
 labs(x = "Bill length (mm", y = "Bill depth (mm)")

Warning: Removed 2 rows containing missing values (`geom\_point()`).

|  |
| --- |
| Figure 1: A scatterplot of penguins’ bill depth and length, colored by species of penguins. |

## 1.3 Penguins

**?@tbl-penguins-top10** shows the first 10 penguins from dataset.

penguins |>  
 slice\_head(n = 10) |>   
 select(species, island, bill\_length\_mm,bill\_depth\_mm) |>  
 gt()

| species | island | bill\_length\_mm | bill\_depth\_mm |
| --- | --- | --- | --- |
| Adelie | Torgersen | 39.1 | 18.7 |
| Adelie | Torgersen | 39.5 | 17.4 |
| Adelie | Torgersen | 40.3 | 18.0 |
| Adelie | Torgersen | NA | NA |
| Adelie | Torgersen | 36.7 | 19.3 |
| Adelie | Torgersen | 39.3 | 20.6 |
| Adelie | Torgersen | 38.9 | 17.8 |
| Adelie | Torgersen | 39.2 | 19.6 |
| Adelie | Torgersen | 34.1 | 18.1 |
| Adelie | Torgersen | 42.0 | 20.2 |

**?(caption)**

# 2. Analysis

## 2.1 Modeling results

# 3. References

Gorman, Kristen B., Tony D. Williams, and William R. Fraser. 2014. “Ecological Sexual Dimorphism and Environmental Variability Within a Community of Antarctic Penguins (Genus Pygoscelis).” Edited by André Chiaradia. *PLoS ONE* 9 (3): e90081. <https://doi.org/10.1371/journal.pone.0090081>.