Reproducible-R-Project

Extinct Mammals

```
library(tidyverse)
```

```
── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──
✔ dplyr     1.1.4     ✔ readr     2.1.5
✔ forcats   1.0.0     ✔ stringr   1.5.1
✔ ggplot2   3.5.1     ✔ tibble    3.2.1
✔ lubridate 1.9.4     ✔ tidyr     1.3.1
✔ purrr     1.0.4
── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
✖ dplyr::filter() masks stats::filter()
✖ dplyr::lag()    masks stats::lag()
ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
library(ggplot2)
library(dplyr)
data <- read.csv("/Users/robynborgstrom/Desktop/Git/reproducible-R-project/Extinct mammal dataset.csv", header = TRUE, check.names = TRUE)
view(data)
colnames(data)[is.na(colnames(data))] <- "Picture"
colnames(data)
```

```
[1] "Common.name"        "Binomial.name"      "Order"
[4] "Date.of.extinction" "Former.range"       "Picture"
```

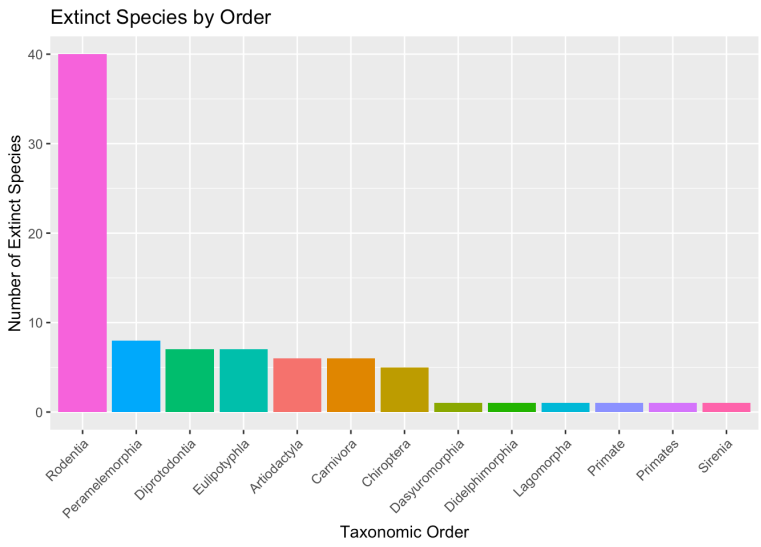
```
data<-subset(data, select = -Picture)

colnames(data)
```

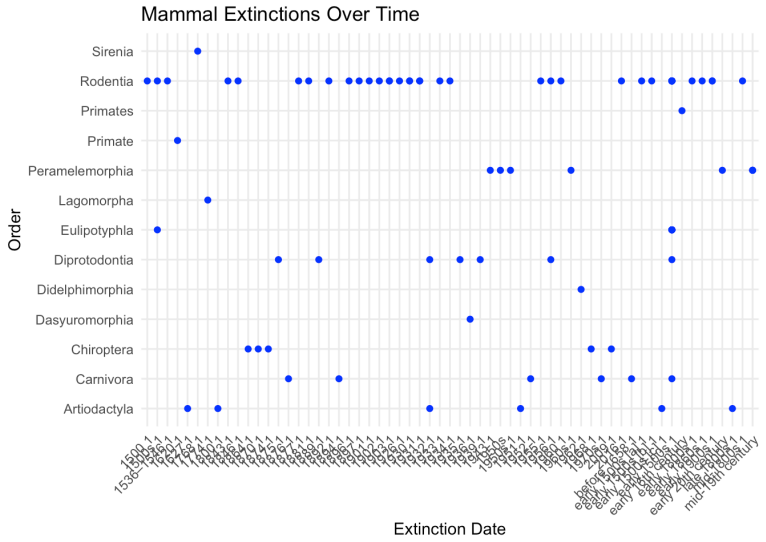
```
[1] "Common.name"        "Binomial.name"      "Order"
[4] "Date.of.extinction" "Former.range"
```

```
extinction_by_order <- data %>%
  group_by(Order) %>%
  summarise(Count = n()) %>%
  arrange(desc(Count))


ggplot(extinction_by_order, aes(x = reorder(Order, -Count), y = Count, fill = Order)) +
  geom_bar(stat = "identity") +
  labs(title = "Extinct Species by Order",
       x = "Taxonomic Order",
       y = "Number of Extinct Species") +
  theme(axis.text.x = element_text(angle = 45, hjust = 1),
        legend.position = "none")
```




```
ggplot(data, aes(x = Date.of.extinction, y = Order)) +
  geom_point(color = "blue") +
  theme_minimal() +
  theme(axis.text.x = element_text(angle = 45, hjust = 1)) +
  labs(title = "Mammal Extinctions Over Time", x = "Extinction Date", y = "Order")
```




```
library(gt)

data %>%
  count(Order, sort = TRUE) %>%
  gt() %>%
  tab_header(title = "Extinct Species by Order")
```

Extinct Species by Order	
Order	n
Rodentia	40
Peramelemorphia	8
Diprotodontia	7
Eulipotyphla	7
Artiodactyla	6
Carnivora	6
Chiroptera	5
Dasyuromorphia	1
Didelphimorphia	1
Lagomorpha	1
Primate	1
Primates	1
Sirenia	1

```
data %>%
  count(Former.range, sort = TRUE) %>%
  gt() %>%
  tab_header(title = "Extinct Species by Region") %>%
  cols_label(Former.range = "Former Range", n = "Number of Species")
```

Extinct Species by Region	
Former Range	Number of Species
Australia	13
Hispaniola	5
	4
Cuba	4
Christmas Island	3
Galápagos Islands	2
Algeria	1
Argentina	1
Argentina, Chile, Brazil, Uruguay, Paraguay	1
Australia (Bramble Cay)	1
Australia (Darling Downs, Queensland)	1

Extinct Species by Region

Former Range	Number of Species
Australia (Flinders and Davenport Ranges)	1
Australia (Great Sandy Desert)	1
Australia (Kangaroo Island and the Younghusband Peninsula)	1
Australia (Nullarbor Plain)	1
Australia (Queensland)	1
Australia (Queensland, New South Wales)	1
Australia (central Western Australia)	1
Australia (eastern coast)	1
Australia (southern half)	1
Australia (west-central)	1
Australia (western and central)	1
Australia, Tasmania	1
Caribbean Sea	1
Central Brazil	1
Commander Islands (Russia, United States)	1
Coronado Islands, Mexico	1
Corsica and Sardinia	1
Cuba (including Isla de la Juventud)	1
Dominican Republic	1
Falkland Islands	1
Fernando de Noronha, Brazil	1
Guam	1
Haiti	1
Hispaniola (currently Dominican Republic)	1
Hispaniola (currently Haiti and the Dominican Republic)	1
Hispaniola; introduced to Puerto Rico, Saint Thomas Island, Saint Croix, U.S. Virgin Islands and Mona Island	1
In green	1
Isla Todos Santos, Mexico	1
Islas Marías, Mexico	1
Jamaica	1
Japan, Korea, Russia	1
Madagascar	1
Martinique	1
Palau	1
Percy Islands (Australia)	1
Peru	1
Puerto Rico, Vieques Island, Saint John, U.S. Virgin Islands, and Saint Thomas, U.S. Virgin Islands	1
Réunion, Mauritius	1
Saint Lucia	1
Saint Vincent	1
San Pedro Nolasco Island, Mexico	1
Santa Cruz Island (Galápagos)	1
Sint Eustatius and Saint Kitts and Nevis	1
Swan Islands, Honduras	1
Thailand	1
United States (Maine, Massachusetts) and Canada (New Brunswick, Newfoundland)	1
Vieques Island, Puerto Rico	1
West Timor, Indonesia	1
Yemen	1

```r
earliest <- data %>% filter(Date.of.extinction == min(Date.of.extinction, na.rm = TRUE))
latest <- data %>% filter(Date.of.extinction == max(Date.of.extinction, na.rm = TRUE))

rbind(earliest, latest) %>%
  select(Common.name, Binomial.name, Date.of.extinction, Former.range) %>%
  gt() %>%
  tab_header(title = "Earliest and Latest Extinctions") %>%
  cols_label(Common.name = "Common Name",
             Binomial.name = "Scientific Name",
             Date.of.extinction = "Year of Extinction",
             Former.range = "Former Range")
```

Earliest and Latest Extinctions

Common Name	Scientific Name	Year of Extinction	Former Range
Vespucci's rodent	Noronhomys vespucciiCarleton and Olson, 1999	1500 1	Fernando de Noronha, Brazil
New South Wales barred bandicoot[16]	Perameles fasciataGray, 1841	mid-19th century	Australia
Southwestern barred bandicoot[16]	Perameles myosurosWagner, 1841	mid-19th century	Australia
Southern barred bandicoot[16]	Perameles notinaThomas, 1922	mid-19th century	Australia