

# Demonstration of Michigan Colors for R Graphs

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## 1 Installation

You will need to install `devtools` if you have not already done so:

```
install.packages("devtools")
```

Then use `devtools` to install `michigancolors`.

```
devtools::install_github("agrogan1/michigancolors")
```

## 2 Usage

```
library(michigancolors)
```

## 3 Allowable Colors

Colors are drawn from <https://brand.umich.edu/design-resources/colors/>.

Allowable colors are: “blue”, “maize”, “tappan red”, “ross school orange”, “wave field green”, “taubman teal”, “arboretum blue”, “ann arbor amethyst”, “matthaei violet”, “umma tan”, “burton tower beige”, “angell hall ash”, and “law quad stone”

## 4 Help

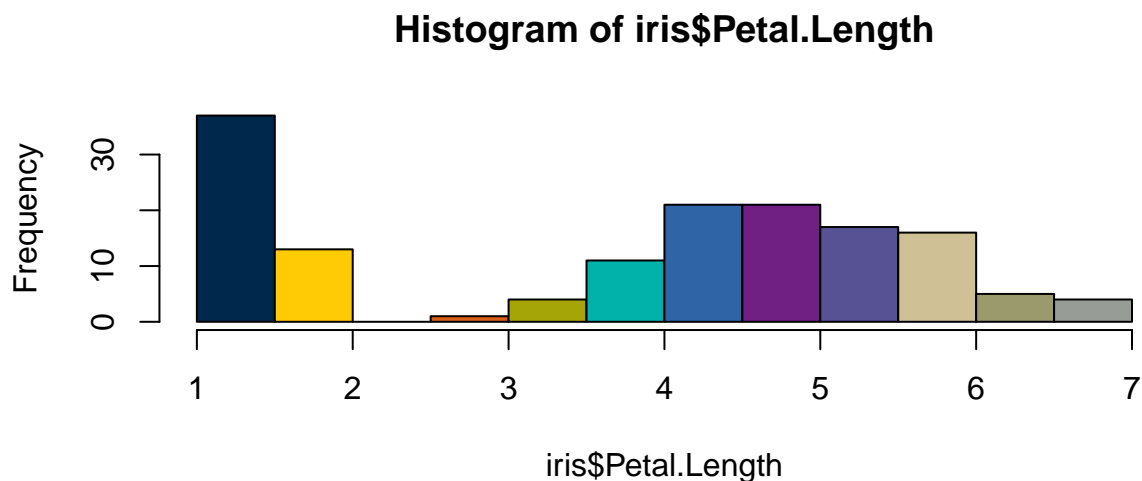
```
help(michigancolors)
```

## 5 Examples

### 5.1 Base R

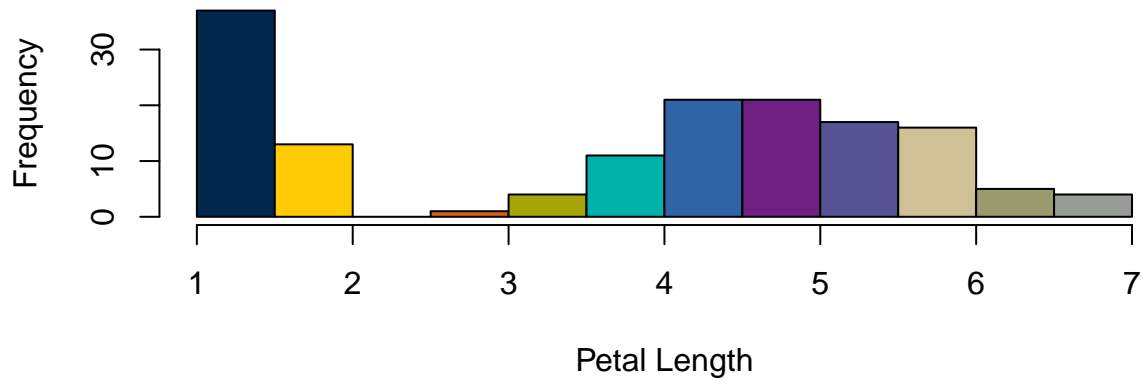
#### 5.1.1 Entire Palette Of Colors

```
hist(iris$Petal.Length, col = michigancolors())
```



```
hist(iris$Petal.Length,  
     col = michigancolors(),  
     main = "Petal Length of Iris Flowers",  
     xlab = "Petal Length")
```

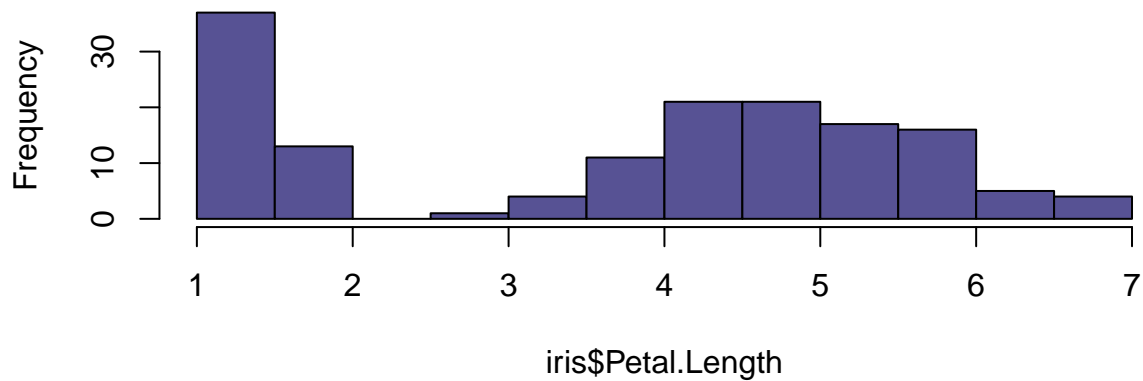
## Petal Length of Iris Flowers



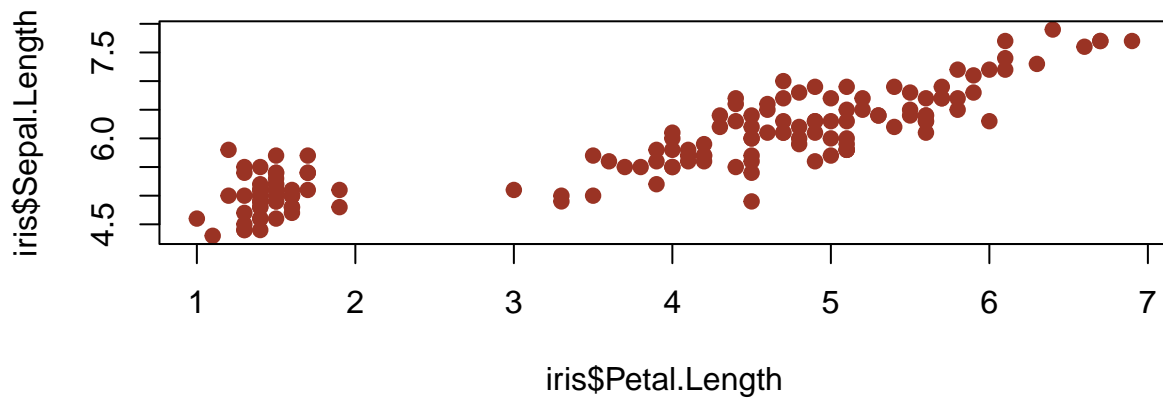
## 6 Specific Color

```
hist(iris$Petal.Length, col = michigancolors("matthaei violet"))
```

## Histogram of iris\$Petal.Length



```
plot(iris$Petal.Length,  
     iris$Sepal.Length,  
     pch = 19,  
     col = michigancolors("tappan red"))
```

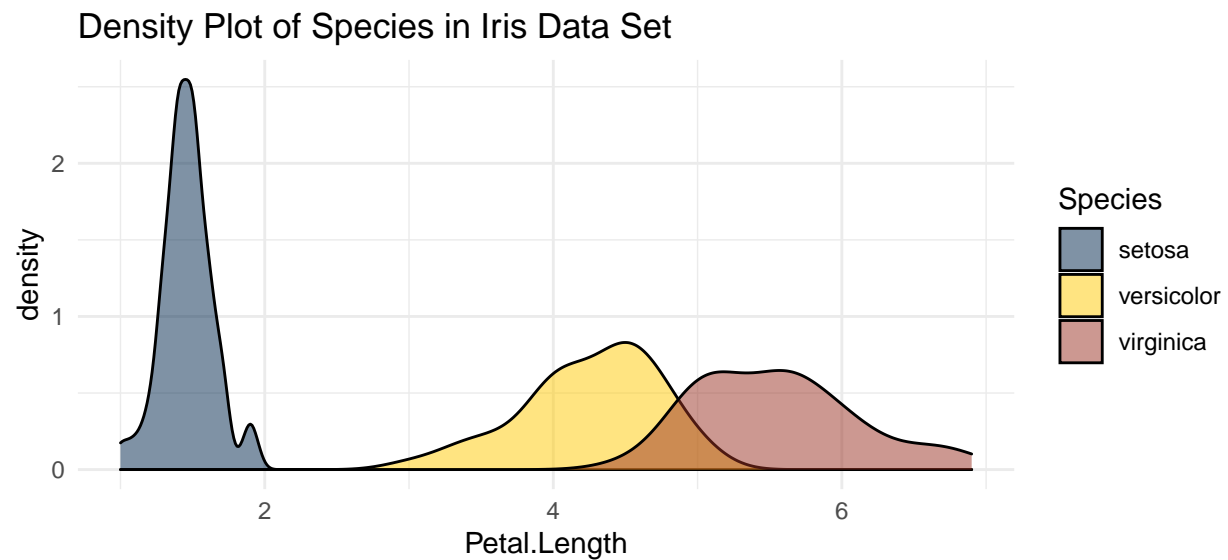


## 6.1 ggplot2

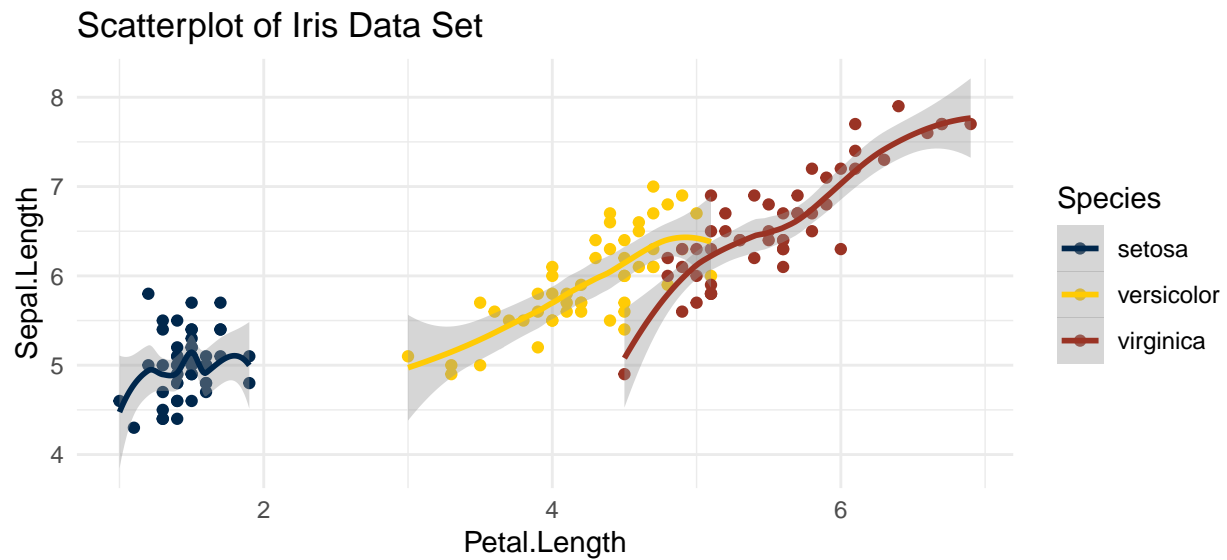
```
library(ggplot2)
```

### 6.1.1 Entire Palette Of Colors

```
ggplot(iris,
       aes(x = Petal.Length,
           fill = Species)) +
  geom_density(alpha = .5) +
  labs(title = "Density Plot of Species in Iris Data Set") +
  theme_minimal() +
  scale_fill_manual(values = michigancolors())
```



```
ggplot(iris,
      aes(x = Petal.Length,
          y = Sepal.Length,
          color = Species)) +
  geom_point() +
  geom_smooth() +
  labs(title = "Scatterplot of Iris Data Set") +
  theme_minimal() +
  scale_color_manual(values = michigancolors())
```



### 6.1.2 Specific Colors

```
library(ggdist) # distribution plots

ggplot(iris,
      aes(x = Species,
          y = Petal.Length,
          fill = Species)) +
  geom_dots(dotsize = 3) +
  labs(title = "Petal Length by Iris Species") +
  theme_minimal() +
  scale_fill_manual(values = c(michigancolors("arboretum blue"),
                              michigancolors("ann arbor amethyst"),
                              michigancolors("matthaei violet")))
```

