

Edgar Anderson's Iris Data

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Description

This famous (Fisher's or Anderson's) iris data set gives the measurements in centimeters of the variables sepal length and width and petal length and width, respectively, for 50 flowers from each of 3 species of iris. The species are *Iris setosa*, *versicolor*, and *virginica*.

Usage

`iris`

Format

`iris` is a data frame with 150 cases (rows) and 5 variables (columns) named:

- `Sepal.Length`
- `Sepal.Width`
- `Petal.Length`
- `Petal.Width`
- `Species`

Source

Anderson, Edgar (1935). "The irises of the Gaspé Peninsula." *Bulletin of the American Iris Society*, **59**: 2–5.
Fisher, Ronald A. (1936). "The use of multiple measurements in taxonomic problems." *Annals of Eugenics*, **7** (Part II): 179–188.

Examples

We investigate the Sepal and Petal leaves for the three species in the Iris data:

```
summary(iris)
```

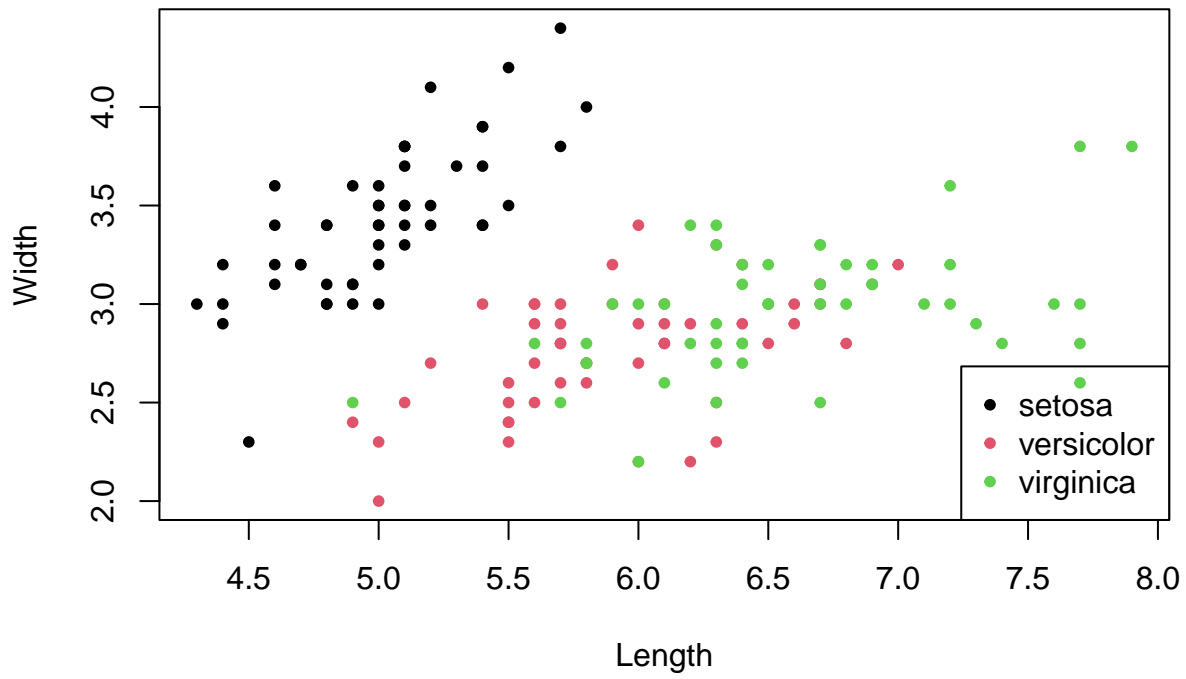
##	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
##	Min. :4.300	Min. :2.000	Min. :1.000	Min. :0.100	setosa :50
##	1st Qu.:5.100	1st Qu.:2.800	1st Qu.:1.600	1st Qu.:0.300	versicolor:50
##	Median :5.800	Median :3.000	Median :4.350	Median :1.300	virginica :50
##	Mean :5.843	Mean :3.057	Mean :3.758	Mean :1.199	
##	3rd Qu.:6.400	3rd Qu.:3.300	3rd Qu.:5.100	3rd Qu.:1.800	
##	Max. :7.900	Max. :4.400	Max. :6.900	Max. :2.500	

To examine the Sepal leaves, we select the length and the width:

```
llen <- iris$Sepal.Length  
lwid <- iris$Sepal.Width
```

Then we plot the data:

```
plot(llen, lwid, xlab = "Length", ylab = "Width",  
     pch = 20, col = as.numeric(iris$Species))  
legend("bottomright", legend = levels(iris$Species), col = 1:3, pch = 20)
```



We can also select the Petal leaves:

```
llen <- iris$Petal.Length  
lwid <- iris$Petal.Width
```

This gives us the following plot:

