# Scatterplots in Jamovi

## Cheatsheet

2025-08-08

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## About

A scatterplot is a graph that shows the relationship between two variables by displaying data points on a Cartesian plane. Each point represents an observation with its position determined by the values of the two variables. Scatterplots help identify trends, clusters, and outliers in the data.

> **i Assumed knowledge**
>
> - You have Jamovi installed ideally 2.5.7.0 or later.
> - You can follow instructions to select, click and drag elements in Jamovi.

> **! Data structure**
>
> The data should be in a **long format** (also known as tidy data), where each row is an observation and each column is a variable (Figure 1). If your data is not already structured this way, reshape it manually in a spreadsheet program or in R using the `pivot_longer()` function from the `tidyr` package.

| Sex | BW |
|-----|------|
| F | 2.15 |
| M | 2.55 |
| F | 2.95 |
| F | 2.70 |
| M | 2.20 |
| F | 1.85 |
| M | 2.55 |
| M | 2.60 |

| F | M |
|------|------|
| 2.15 | 2.55 |
| 2.95 | 2.20 |
| 2.70 | 2.55 |
| 1.85 | 2.60 |

Figure 1: Data should be in long format (left) where each row is an observation and each column is a variable. This is the preferred format for most statistical software. Wide format (right) is also common, but may require additional steps to analyse or visualise in some instances.

### Data

For this cheatsheet we have two separate datasets. The first is part of the possums dataset used in BIOL2022 labs. Two numerical variables are available: `ExpBLUP` and `AactiveTBLUP`. The data is available in the file `possums-blup.csv`.

The second dataset is data were collected and made available by Dr. Kristen Gorman and the Palmer Station, Antarctica LTER, a member of the Long Term Ecological Research Network. The day may be downloaded manually but is available below as `penguins.csv`.

### Import data

1. Click on the Menu icon: ☰
2. Select Open > Browse, and navigate to the downloaded file.
3. Click Open to load the data.

### Plot

1. Click on the **Analyses** tab.
2. Select **Exploration** > **Scatterplot**.
3. Drag the variables you want to plot into the X and Y boxes. The variables should both be numerical.

4. If you want to colour the points by a categorical variable, drag the categorical variable into the **Color** box.
5. Explore the options for **Regression Line** and **Marginals** by clicking on them. **Note**: *depending on the version of Jamovi, these options may be located in different places or will not be available. The point is that you can explore additionality fucntionality with ease.*
6. Rename variables by clicking on the variable name in the **Variables** tab.

## Export

To export the plot, right click on the plot, select Image > Export... > Browse and rename the file before clicking on the Save button.
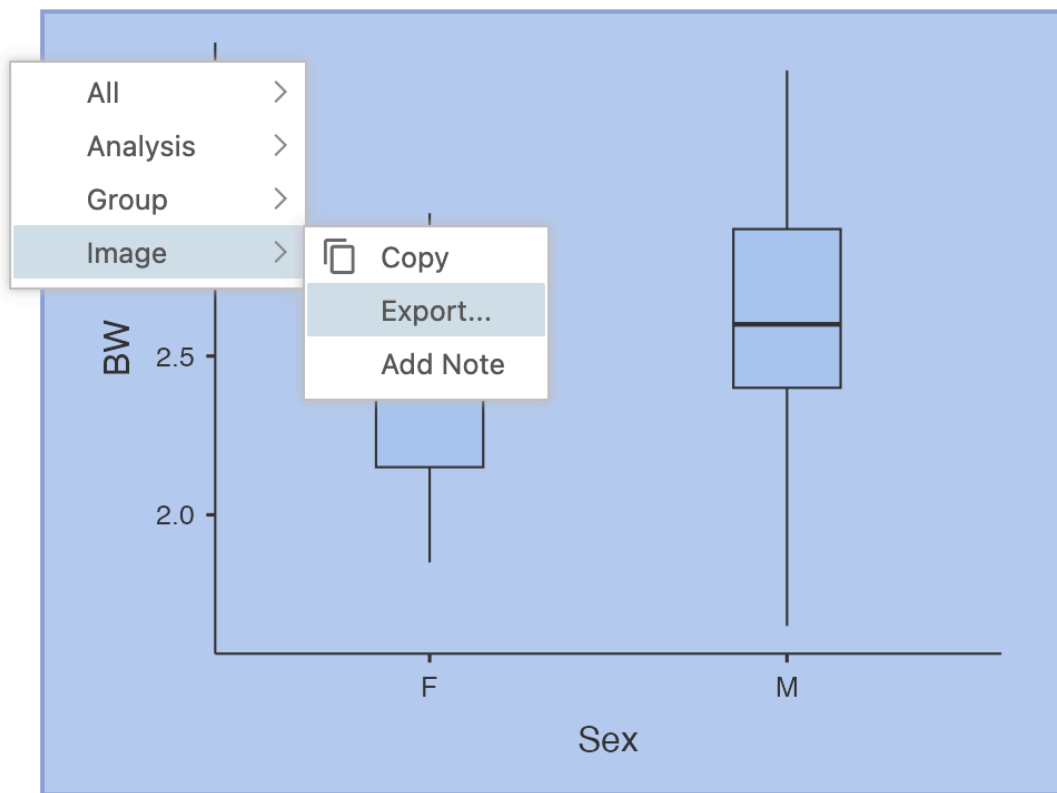


Figure 2: A popup window should appear when you right click on a plot, where you can export the image. Click on the image to expand it.