

FarFish DLMGui user guide: Data input

The **DLMGui** (Data Limited methods graphical user interface) is a tool based on the DLMtool R package and it was designed to facilitate data input and use of the methods described in Carruthers *et al.* (2014). You can access it at ffdb.farfish.eu/shiny/dlmgui/. If you are curious to know more about the source code of this tool, go to github.com/farfish/dlmgui/.

Data input

To input your data, you can do it two ways via the **Edit data** tab:

1.- You can enter the data manually. Once the fields are filled, give a name to your file in the “Filename to save as” box, and click on the “Save data to CSV” button next to it. **Please keep in mind that you don’t need to have the information for all fields. If some info is missing, you can either write “NA” or leave it blank.**

2.- Upload a .CSV file with your data on it. Click “browse” and select the file of interest from your computer. **To see an example of a valid .CSV file:** by clicking on “load demo data” and then “Save data to CSV” you can see an example of what the .CSV data should look like. This demo file could be used to play with the tool and see how it works.

- **Data Description** table: please include here the name of the species, the region and the units of your data.

Time series: the following five tables correspond to the data time series of interest, being **Catch data**, **Abundance Index**, **Annual fishing effort**, **Catch at age** and **Catch at length**. The first and last year of the time series can be modified by clicking the up and down arrows in the two fields next to **Years**:. For **Catch at age** it is also necessary to specify the maximum age at **Bin total** field. For **Catch at length**, the **Bin total** field represents the number of length bins found in the user’s data, these bins should be the same length and the minimum length of each bin should be specified in the Minimum length row.

At the bottom of the page, there is also a place to enter some available biological information or life history traits by filling the **Constants** table. For more information about the field, the user can put the mouse pointer on the dotted line below the “Constant” name and some additional information will appear.

If you have a measure of imprecision for the constants that could be transformed into a coefficient of variation (the ratio between the standard deviation and the mean), it can be registered in the **Coefficient of variation** table. As before, a definition of each of the coefficient of variations is available by placing the mouse over its name. Again, the field can be left blank or you can write “NA”.

The data to fill these tables could be copied from an Excel file.

The FarFish DLMGui is part of the Farfish data limited tool (<https://ffdb.farfish.eu/>) and it has been designed by Margarita María Rincón from the Spanish Institute of Oceanography, Cadiz Oceanographic center (IEO-CSIC) and Jamie Lentin from Shuttlethread in the framework of the European Union's Horizon 2020 research and innovation project under grant agreement No. 727891/FarFish project. This work does not necessarily reflect European Commission views and in no way anticipates the Commission's future policy in the area.

References

Carruthers T, Hordyk A (2020). DLMtool: Data-Limited Methods Toolkit. R package version 5.4.5, <https://CRAN.R-project.org/package=DLMtool>.

Carruthers, T. R., Punt, A. E., Walters, C. J., MacCall, A., McAllister, M. K., Dick, E. J., & Cope, J. (2014). Evaluating methods for setting catch limits in data-limited fisheries. *Fisheries Research*, 153, 48–68. <https://doi.org/10.1016/j.fishres.2013.12.014>