



## PLAYER GUIDE - EXPORTING DATA

In some modules it is possible to export ecological data to .csv files, which can be read by spreadsheet programs like excel and open office calc, and by statistics programs like R.

In principle, all data of all years can be exported, such as the ecological data of the tile parameters (pH, nutrients, hydrology), the presence of species, the results of the various surveys and the management history per tile. Ecosim also gives you the opportunity to export a selection of this.

This guide explains:

- 1) how to export the data.
- 2) how to read the produced file.

### 1. How to export the data

To export data, click this button in the user interface:



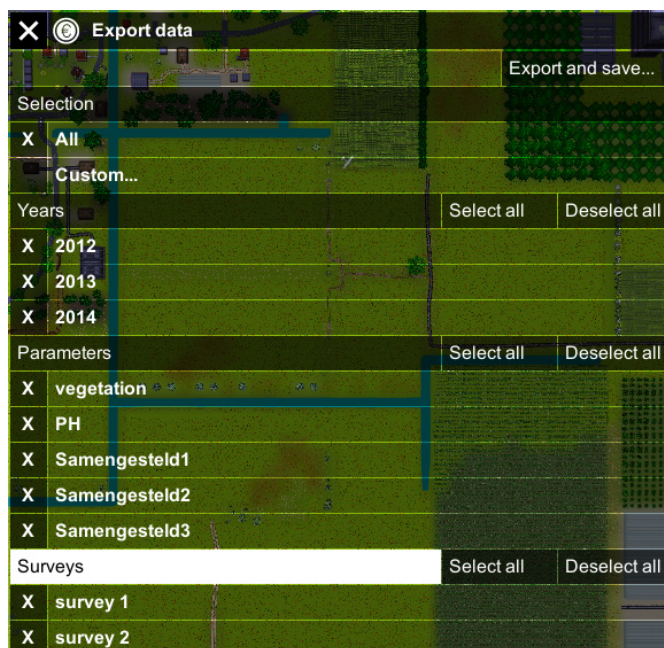
This opens the following menu shown in the next column (which' years, parameters and surveys may vary depending on the module you are playing).

Under the header "selection", check **all** if you want data of all the tiles in the management area. Check **custom** when you want to select the tiles in the landscape of which you wish to export the data from.

Under the header "year", check the years of which you wish to export data. Click **select all** if you wish to export the data of all years you have played.

Under the header "parameters", select the parameters you wish to export the data.

Under the header "survey", select the surveys you have conducted. The export data menu will display the exact name you have given to your surveys, so if you want the species name to appear here, make sure you mention the species in your survey name.



If you are ready selecting, click export and save. You now have the option to save the .csv-file under the name and in the position you want.

Note that, depending on the amount of parameters, amount of tiles and number of years, it may take some time to export all these data. The number of cells in the sheet equals [# years] \* [# tiles] \* [# parameters]. So the body of data you are exporting can become huge.

### 2) Understanding of and working with the data

The .csv-file can be opened in a variety of programs. Here we explain how to work with the data in excel. If you open the file in excel, each tile occupies a row and each parameter fills a column.

**TROUBLESHOOTING:** in case the separation of the parameters in columns is not going well (i.e. if all data of a single tile are given in a single cell), make sure the spreadsheet program understands it should use ; as separation mark between cells.

#### 2.1 explaining the columns and their data

The following data are standard:

column A: **year**

column B&C: **X and Y coordinate** of the tile which identify the location of the tile.

column D: vegetation: **vegetation type** (in Dutch - as



standardised in the Ecosim software).  
column E: succession: **landscape type** (in Dutch - as standardised in the Ecosim software).

Depending on the module you are playing, the target areas may be the next in line. Target areas are areas consisting of more than one tile that are preselected in the game and collectively form a unit on which surveys and/or measures are carried out in. If you tick the target area in the export data menu in Ecosim, it will highlight in the landscape, so you know what the area in question is.  
Target areas are relevant if you want to analyse data that pertain to areas larger than a tile that are treated as a single unity - for example a lake that is surveyed in its entirety instead of all the tiles individually.

Next follows a series of columns of **parameters** as selected by you. Below, under 2.3, each of these values are explained.

Next may follow the **parameters with the name samengesteld1, samengesteld2, etc.** These are parameters that altered under the influence of other parameters. For example the presence of ditches will alter the water levels of nearby tiles. These altered values are given under the name "samengesteld". Which parameter is under the influence of another, may be different in each module. Look in the library under technical information for a detailed description of the samengesteld parameters.

Next follow the research and surveys that are carried out. Each survey or research will receive its own column. If a cell in a particular survey column is empty, it means that it was not part of that particular survey. If it is 0, it means no target species was found. Otherwise the number reflects the number of individuals in the particular tile.

Next follow the measures that are taken on a particular tile. If a tile underwent the treatment in question, it has value 1, if not, the cell is empty.

The last column is reserved for the cumulative costs of surveys and measures carried out on a specific tile in a specific year.

## 2.2 working with data derived from an area rather than a single tile (Sunfish module!)

In some modules (e.g. the module sunfish problems) data pertain to an area rather than a single tile. For example, surveys on a lake (like in the sunfish module) provide data for the entire lake, which consists of many different tiles. Some actions affect an entire lake and the costs are therefore also for treatment of the entire lake.

As the sheet works with single cells, these actions are also attributed to a single cell. Hence to work with this sheet properly, you need to organise the sheet in such a way that you can accumulate the values of all cells in the lake.