**Cover note for FW4 datasnapshot**

\_FR for French analyses & \_ES for Spanish analyses

Raw data from ICES landings in .xlsx:

* ICES\_landings\_278a&b\_all\_countries\_1997\_2014\_FR

*Different tabs explaining shaping of the data: how to get from the raw data to the R format data*

* ICES\_Histlandings\_278c\_all\_countries\_1989\_2010\_ES

R format data from ICES landings in .csv:

* ICES\_landings1997\_2014\_AllSpecies\_FR
* ICES\_landings1997\_2014\_noPelagic\_FR
* ICES\_Histlandings1989\_2010\_ES

Trophic level data in .csv:

* TL\_landings&EVHOE\_FR
* TL\_landings&DEMERSALES\_ES

Raw data from surveys in .xlsx:

* IEOsurveyDEMERSALES\_1992\_2015\_ES
* Densities\_haul\_BiologicalInfo\_CSBBFraOT4\_SSASMP\_kNN\_V2\_preparing file

*Different tabs explaining shaping of the data: how to get from the raw data to the R format data. For survey characteristics (e.g. depth), the following file was used SSA\_Sampling\_info\_CSBBFraOT4\_V2*

R format data from surveys in .xlsx:

* biomass file excluding pelagic species in BoB continental shelf\_FR
* biomass file for all species in BoB continental shelf\_FR
* IEOsurveyDEMERSALES\_biomass\_1992\_2015\_ES

R script for MTL computation in .txt:

* 2016-12\_ICESlandings\_MTL\_FR
* 2016-12\_EVHOE\_MSFDdataproduct\_MTL\_FR

**Methodology to obtain for each year the estimated density biomass value for each species in the Northern Bay of Biscay (EVHOE survey) from the raw data extracted from the “OSPAR Groundfish survey monitoring and assessment data product”:**

**a- Gathering raw data infos into one file**  
 The raw data file that is used for the assessment is " Densities\_haul\_BiologicalInfo\_CSBBFraOT4\_SSASMP\_kNN\_V2". The first step needed is to add to this excel file three columns that are missing which are: the **yearshot** (i.e. the year of each shooted haul), the **shootLat\_degdec** (i.e. the latitude of each shooted haul) and the **Depth\_m** (i.e. the depth of each shooted haul). The function "VLOOKUP" in excel should be used to transfer these columns from the "SSA\_Sampling\_info\_CSBBFraOT4\_V2" into the assessment file (i.e. Densities\_haul\_BiologicalInfo\_CSBBFraOT4\_SSASMP\_kNN\_V2 ).  
  
PS: Note that the year is not mandatory as it is found in the HaulID column in the "Densities\_haul\_BiologicalInfo\_CSBBFraOT4\_SSASMP\_kNN\_V2" file. However, it is useful for filtering when a specific year needs to be checked.  
  
  
**b- Selecting the Bay of Biscay continental shelf area for the assessment**  
Once the three columns have been inserted in the "Densities\_haul\_BiologicalInfo\_CSBBFraOT4\_SSASMP\_kNN\_V2" file, the selection of the appropriate area for the assessment can begin. As we are assessing the Bay of Biscay continental shelf only, we need to exclude from the original file all the data that are sampled in the Celtic Seas. For that purpose, we use the "filter" function in excel to exclude all the hauls that were sampled above 48 degdec using the **shootLat\_degdec** column. After this, in order to consider only the continental shelf (which has a maximum depth of 200 meters before reaching the continental slope), we apply a second filter to exclude all the hauls that were collected above 200 m depth using the **Depth\_m** column.  
 **c- Calculating the mean density biomass of species per year**  
Now in order to have the mean density biomass per year of each species in the studied area, two steps needs to be achieved. First of all, we sum the available density biomasses per species and per haul. We obtain a density biomass for each species for the whole number of hauls per year.   
Now in order to have the men density biomass of species in the area, we divide the summed density biomass per the total number of hauls (i.e. 1092 hauls in the selected area). We obtain thus the mean density biomass of species for the selected area.  
  
**d- Preparing the final files to be used with the script (i.e. one file with all species and another excluding pelagic species)**  
In order to separate pelagic from demersal species, a compartment column should be added to the excel file that is being processed. The function "VLOOKUP" in excel should be used for the inclusion of the compartments. Once this is done, the filter function is used to exclude pelagic species in order have a final excel file excluding pelagic species. The 2 final files should be in .csv format for their use in the R script.