**Impacts of climate change on functional diversity of fish communities in European waters**

**R Scripts use**

Creating a main folder: Sub-project 3.3

Creating a .Rproj file in this folder

Creating files for one scenario - one CMIP6 model:

* Dataset
  + Info
  + Output
    - accuracy
    - binary
      * diversity
        + fonctionnelle
      * futur
      * pst
    - fonctio
    - proba\_presence
      * Delta\_habitat\_suitability
    - threshold
  + Processed
    - Data\_for\_SDM
      * absence\_presence
      * accuracy
      * env
        + delta
      * occurrences
        + status
        + with\_env
      * pred\_obs
      * spatial\_prediction
        + futur
        + pst
  + Raw
    - Data\_presence
      * data\_SDM\_examples
        + env
        + modeles
        + occurrences
        + predictions
      * spatial\_prediction
        + 2085
        + futur
        + pst
    - Med + NeA
      * biomass
      * traits
    - OBIS GBIF
    - Traits
  + Other
* Figures
  + Absences\_Presence
  + Accuracy
  + Autres
  + comparaison\_chaluts\_predictions
    - continuous
  + Diversity
    - Fonctio
      * Indices
    - Species\_richness
  + Probabilite\_presence
    - Binary
      * Comparaison\_proba\_bin
      * Delta\_prediction
      * Map\_delta\_85
      * Map\_prediction
        + fut
        + pst
    - Delta\_prediction
    - Extrapolation
    - Incertitude
    - Map\_delta\_85
    - Map\_prediction
    - ST
    - Traits
    - Var\_rate\_prediction
  + Probabilite\_presence\_env
  + Resume
  + Traits
  + Variables\_environmentales
    - Delta
    - Scenario\_CMIP6
    - pst
* Rscripts
  + Fonctions
  + Script
    - SDM
      * Absence\_presence
      * Accuracy
      * Diversity
      * Environment
      * Functional\_space
      * Other
      * Probability\_presence

Script order:

2023\_01\_30\_Plot\_env.R (Environment)

2023\_01\_31\_Accuracy.R (Accuracy)

2023\_02\_10\_Absence\_presence\_all.R (Absence\_presence)

2023\_01\_31\_Climatic suitability.R (Probability\_presence)

2023\_04\_Incertitude\_SDM.R (Probability\_presence)

2023\_04\_07\_Extrapolation\_coast.R (Probability\_presence)

2023\_02\_17\_Distrib\_de\_proba\_presence.R (Probability\_presence)

2023\_02\_01\_ST\_probabilite\_presence.R (Probability\_presence)

2023\_02\_13\_Proba\_presence\_all.R (Probability\_presence)

2023\_04\_21\_Commercial.R (Probability\_presence)

2023\_05\_23\_Relation\_delta\_env\_proba.R (Probability\_presence)

2023\_02\_27\_Threshold\_binary.R (Probability\_presence)

2023\_03\_10\_Convert\_binary.R (Probability\_presence)

2023\_03\_25\_Binary\_values.R (Probability\_presence)

2023\_04\_12\_Traits\_analyse.R (Probability\_presence)

2023\_04\_21\_Threshold\_plot.R (Probability\_presence)

2023\_03\_15\_mFD (Diversity)

2023\_03\_13\_Gain\_loss.R (Diversity)

2023\_03\_10\_Species\_richness.R (Diversity)

2023\_04\_19\_Plot\_diversity.R (Diversity)

2023\_03\_14\_Beta\_div.R (Diversity)

2023\_03\_24\_Heatmap\_delta\_proba.R (Functional\_space)

2023\_04\_26\_Heatmap\_var\_rate.R (Functional\_space)

2023\_05\_16\_Heatmap\_var\_rate\_binary.R (Functional\_space)

2023\_04\_05\_Heatmap\_fonctio.R (Functional\_space)

2023\_05\_11\_ST\_centroids.R (Functional\_space)

2023\_06\_27\_CWM\_traits.R (Functional\_space)

Names of scenario/models have to be changed in the scripts, or a loop can be created to take into account the several scenario/models.

Description of the presence/pseudo-absence data sets: