# DISCOVERING HABBY

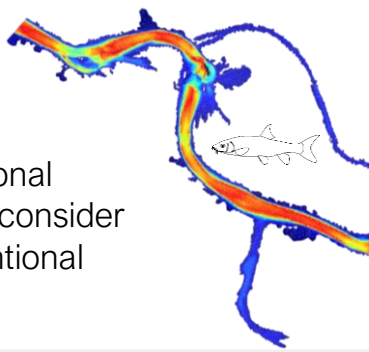
## AN ECOHYDROLIC SOFTWARE

## Course Content

Habby is free and open source ecohydraulic software developed by OFB the French Office for Biodiversity, the national research institute Inrae and EDF the French electricity group. It is available under three operating systems Windows/Mac/Linux and its Graphical User Interface (GUI) is available in different languages: English, French and Spanish.

One of its main functionality is to predict fish and macroinvertebrate habitat suitability at various discharges. This approach requires hydraulic simulations. Habby accepts the outputs from various 2D models, and in case of 1D models the outputs are interpolated to 2D. An interesting feature of Habby is the ability to convert the different hydraulic outputs into HDF5 files, which is an international binary and self-describing format, designed to store, and organize large amounts of data. Habby offers the possibility to add new hydraulic models as it only requires the conversion of its outputs files into the HDF5 format in Python.

Habby also integrates common habitat suitability curves for species/guild/stages and others biological models, like multivariate suitability indices. Complex user-specific operations can always be launched automatically outside the Graphical User Interface by using scripts in Command Line Interface mode. New tools for estimating stranding risk due to hydropeaking for juvenile fish, for calculating hydrosignature and for using axis as a systematic analysis along a watercourse line, will be introduced. Habby is open to international collaboration and can easily evolve to consider new biological models using unconventional parameters.



## Dates

Sunday 24 May 2020
9h30-12h30
13h30-16h30

## Location

INRAE,
Centre de Lyon-Villeurbanne
BP 32108, 69616,
5 Rue de la Doua,
69100 Villeurbanne
See Map

## Costs

Free of charge

## Registration

yann.lecoarer@irstea.fr

Preparatory files will be provided to help participants to install Habby and download the course exercises.