

## LifeWatch data services: online data processing tools for biodiversity science

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LifeWatch is a European infrastructure that aims to support biodiversity and ecosystem science. As part of the Flemish contribution to LifeWatch, the Flanders Marine Institute (VLIZ) is setting up an online data portal where scientists can make use of several web services to process their data. The web services assist in data standardization, quality control, visualization, analysis and retrieval of additional data. The portal provides a user-friendly interface where scientists can upload their data files and choose from a list of available web services. The resulting file contains extra columns in addition to the data in the original file. The original file, the processed file including the added information and a summary report are stored on the server and linked to your user account. This allows the user to retrieve the files later, at any time.

The number of available services will increase in the next years. Services currently available are:

- Geographical services: based on the latitude and longitude values within the uploaded data file, the application will retrieve information about administrative boundaries, bathymetry, protected areas, total biological valuation,...
- Taxonomical services: based on the scientific names within the uploaded data file, the application will check if the names exist in taxonomic databases as World Register of Marine Species, Catalogue of Life, IT IS,... It is also possible to do an extended taxon match (WoRMS or PESI).
- The LifeWatch portal uses a specific data format. The application will check if your file matches this data format.
- Tidal services: based on the latitude, longitude and time values within the uploaded data file, the application will calculate the water level based on tidal data for observations in the Belgian part of the North Sea.