

Data processing and handling techniques for the purposes of efficient biodiversity data management and reporting

Exercise 5 - Getting data (data acquisition)

Objective - Obtain GIS and related data from various online sources

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Task 1: Acquire data from online sources.

Objective: Fetch GIS data on species occurrences for your country from GBIF Portal.

Steps to do:

1. Go to GBIF Portal. Search for it on the Internet.
 2. Register as new user. Verify registration and login.
 3. Choose to search Occurrences.
 4. Filter data to include only records for your country. If there are too many search results please add additional filters. For example, limit data to include only records for specific year or something similar.
 5. Download data in CSV format.
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Task 2: Retrieve GIS data from WMS/WFS Web Service.

Objective: Connect to WMS/WFS Web Service using QGIS.

1. Search for GIS data on Biogeographical regions that you can get via WMS web service. You can search for available services on [EEA DiscoMap Portal] (<http://discomap.eea.europa.eu>).
 2. Find and copy WMS URL for BiogeographicalRegionMap2016_LAEA layer.
 3. Open QGIS. In Browser panel, navigate to WMS and choose New connection (right click on WMS).
 4. In the “Create a new WMS connection” windows, enter connection name (choose your own custom name) and paste URL from step 3 to URL field. Click Connect to establish a connection to this web map service.
 5. In the Browser panel navigate to WMS and find your new WMS connection. Click on the + sign next to the connection name and observe the available data layers.
 6. Drag and drop Biogeographical region layer to the Layer panel to display it on map.
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Task 3: Use PESI EU Nomen Taxon Match Service.

Objective: Match and compare list of species with PESI EU Nomen Catalogue of species.

Steps to do:

1. Open file `data/species_list.csv` with Libre Office Calc.
2. Examine the content of the file.
3. Search for Taxon Match service on PESI EU Nomen portal.
4. Choose the `species_list.csv` and upload it.
5. Make sure to check First row contains column names.
6. Choose the following fields as output: GUID, ScientificName, Authority, Accepted name, Taxon status
7. Observe the preview of your species list and make sure to choose `ScientificName` from dropdown menu located on top of species list preview.
8. Confirm and initiate match service.
9. Examine the status of matched scientific names and download data as Excel sheet.
10. Examine final results.