Tutorial for the DRYRivERS web application

03/11/2023

Introduction

The **aim of the DRYRivERS app** is to enable citizens to collect information about drying events. With this field information, citizens will contribute to the mapping of drying rivers and will help to improve scientific predictions of the future impacts of climate change in these ecosystems.

This tutorial is for the DRYRivERS web application, which can be accessed through a web browser at this URL: https://www.dryver.eu/app

There is also a DRYRivERS mobile application. For more info on the mobile app, please follow this link: https://www.dryver.eu/citizen-science/introduction

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Before you begin

The two "faces" of DRYRivERS

The *mobile application* was developed to be quick and easy to use. **Its main purpose is to allow offline data recording on the field**. You find a detailed tutorial on how to use the mobile app below.

The *web application* (https://www.dryver.eu/app) is a **real-time map of all recorded data**. The users here can add new spots and records, or they can **edit** their previously **recorded data**. There are several other features of the web application, for more info, please visit the project website (https://www.dryver.eu/citizen-science/how-does-it-work) and see the web app tutorial file.
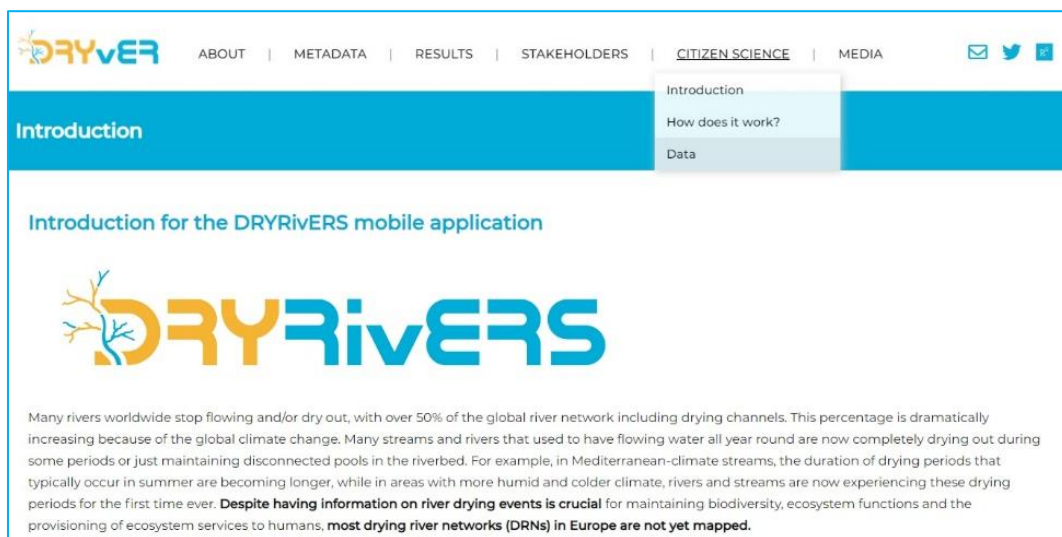
Definitions

spots - locations on the map indicated by a marker

records - repeated observations of the same spot

Accessing the web application

The web application can be accessed through a web browser at this URL: https://www.dryver.eu/app **or** by visiting the DRYvER website (https://www.dryver.eu/) and navigating to **Citizen Science → Data**.
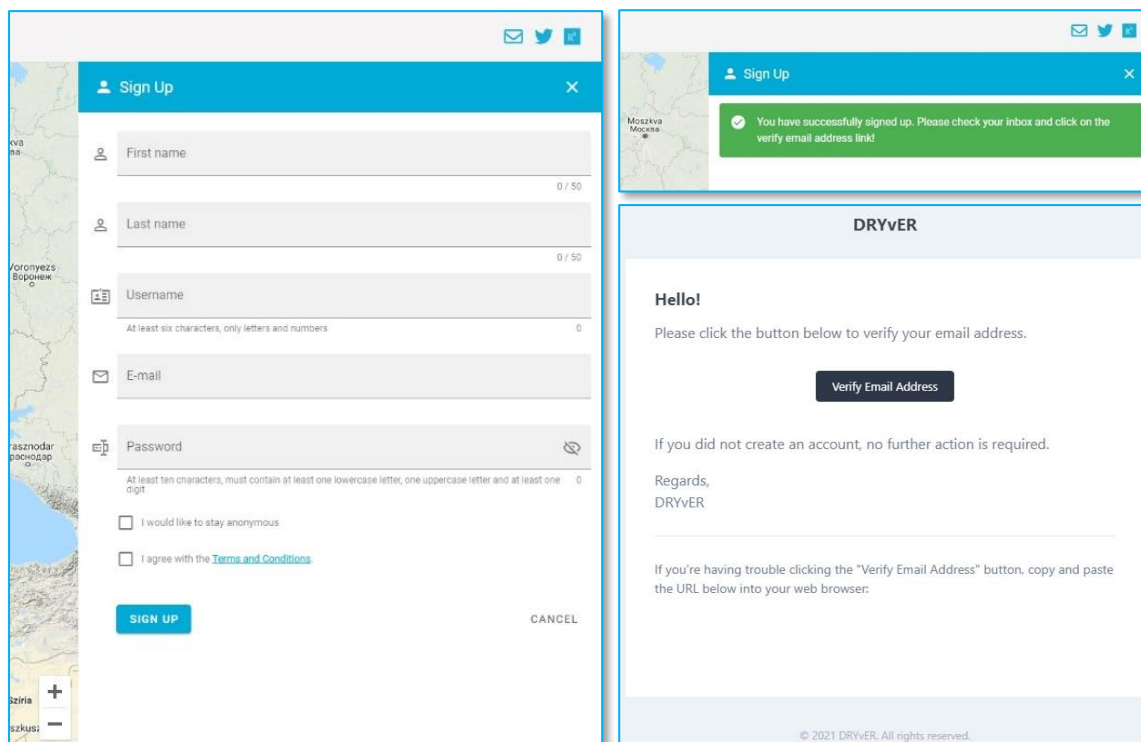
Signing up or logging in

Please note, that **without registration** it is only possible to view existing spots (locations on the map indicated by a marker) and records (repeated observations of the same spot).

If you wish to create new spots or records, use the time machine, view statistics, or download data, you must **sign up** or **log in with an existing account**. In order to do that, click the **Login (key) icon** or **Sign Up (person) icon** and then fill out the requested information.

In case you have created an account in the DRYRivERS mobile application, you can use that to log in to the webapp too.
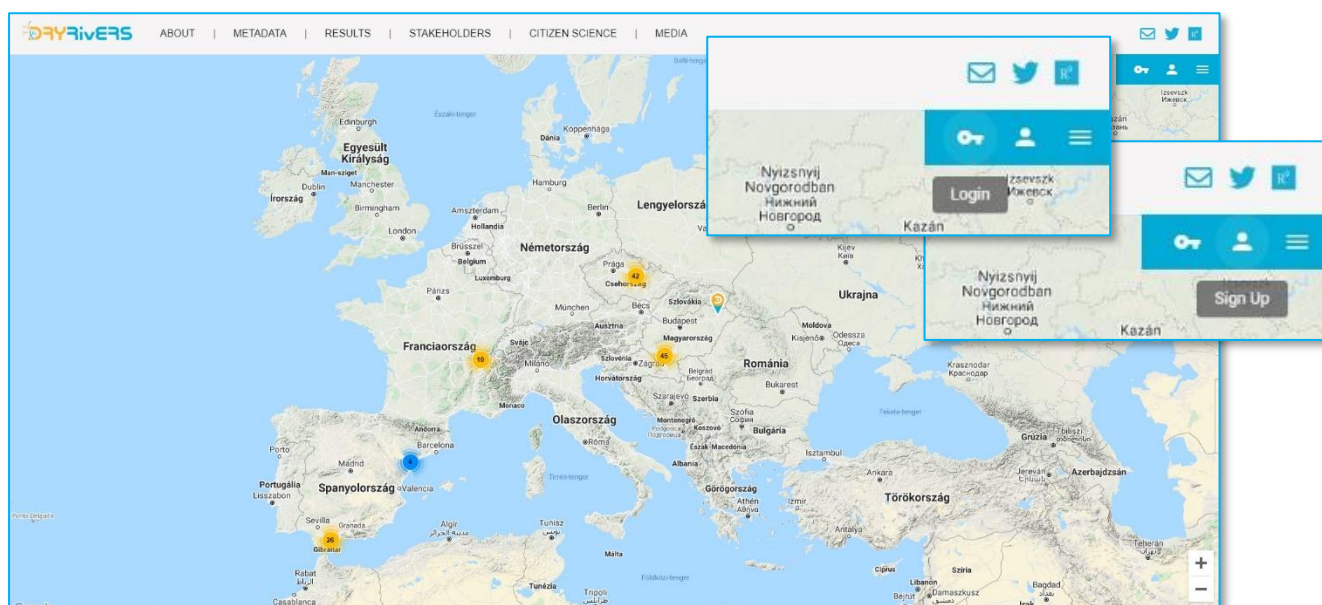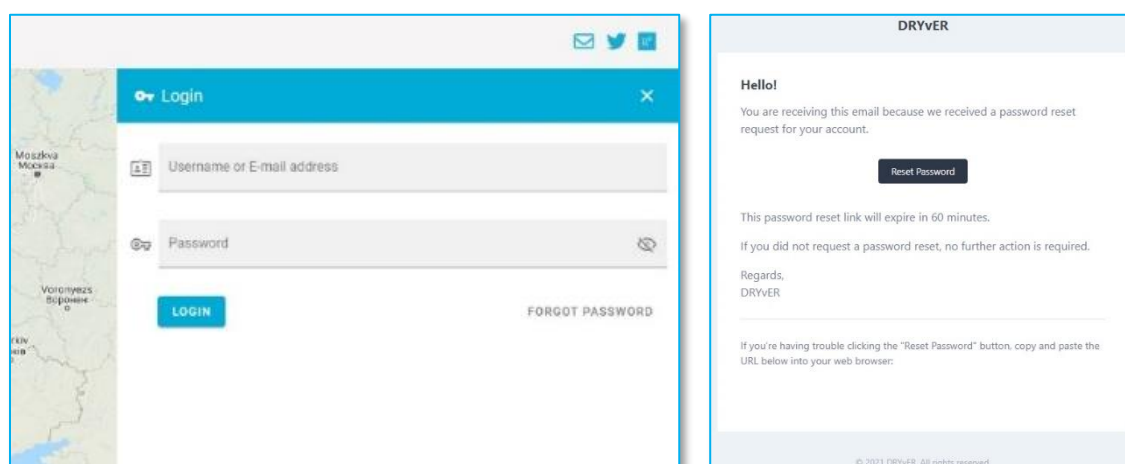
When signing up, you have the possibility to stay anonymous and register without name. **Mandatory information is** the **Username**, **Email**, **Password**, and you must also agree to the **Terms and Conditions** to complete the registration. You will receive a notification on the successful registration, and you will need to **verify your email** address via the sent email. If you do not see the confirmation email in your inbox, please check the spam folder or the promotions (Gmail) folder.

If you forgot your password, you could click on the **Forgot Password button** on the Login page. After that, you must give your email address, then you will be able to reset your password via the received email.

You can always log out by clicking the ↪ **Logout button** in the Menu (≡ top right corner).

Navigating on the map and viewing existing spots or records

Without registration, two options are available for everyone: to **find** and **view** existing spots and records on the map.

Navigation on the map

Navigating on the DRYRivERS map is done with the generic tools: moving the map is done by dragging with the mouse cursor, zooming can be done either with scrolling or by using the "+" and "-" buttons in the bottom right corner.

The **D markers** are showing the existing spots on the map. The **markers with the numbers** are referring to the number of closely located spots. Clicking on these numbers will result in zooming in to these spots. In the bottom left corner there are **two slider buttons** allowing the user to **switch off marker clustering** and **switch between satellite and terrain map views**.
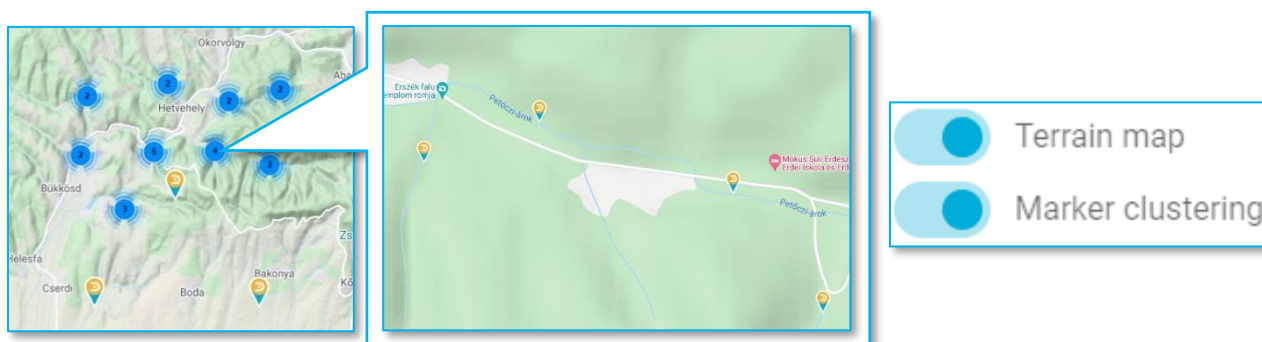

Viewing existing spots or records

By clicking on an existing spot, it is possible to view all existing records' information, i.e., date and time, hydrological conditions, and the user who uploaded the data. It is possible to **scroll through all the photos** either by clicking on the thumbnails next to the records, or by clicking on the left (<) and right (>) arrows, or the dots on the preview picture. Clicking on the preview will result in showing the whole photo.
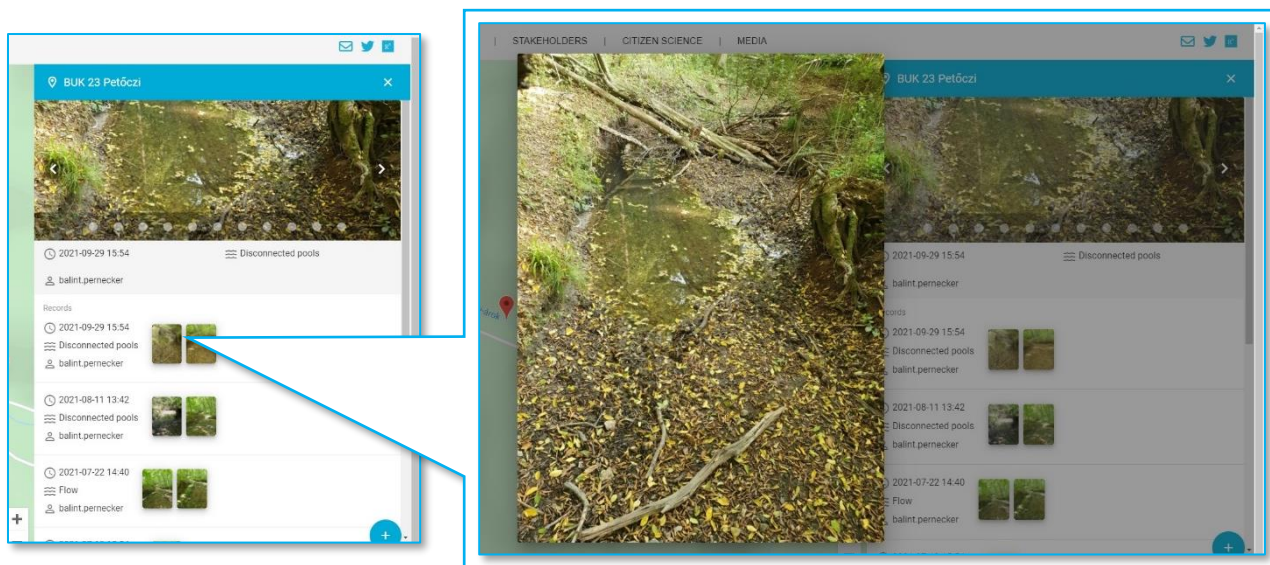
Menu items

After registration, the user can access all features on the web app. In the main menu, there are **six options**. The user can:

1. add new spots or records
2. download records
3. use the time machine to filter spots and records and view statistics
4. access their profile
5. view tutorials and info on the DRYvER project
6. log out
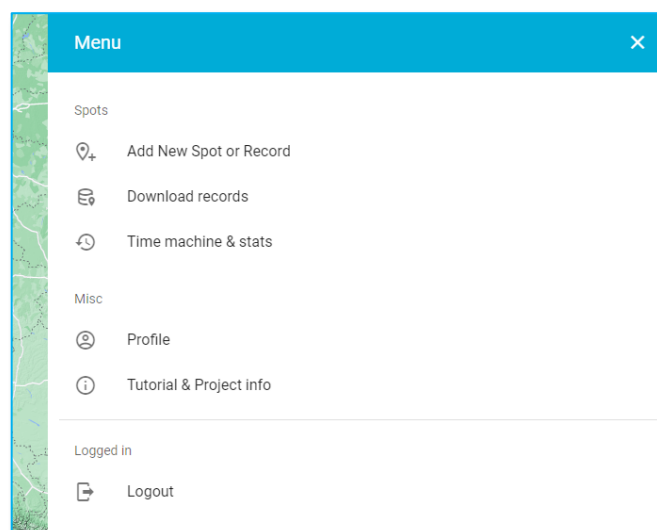

Adding and editing spots or records

Adding new spot

Adding a new spot is done by clicking on the **Add new spot or Record icon** in the top right corner. After that, **the cursor will change to a cross**. You will be able now to select the desired location on the map. By clicking on an empty space on the map the **Location field will show you the GPS coordinates** of the spot you selected. If the new spot's location is fine, then you can fill the remaining fields (Spot Name, Description, Date, Hydrological conditions). **Date and Hydro conditions are the mandatory fields**.
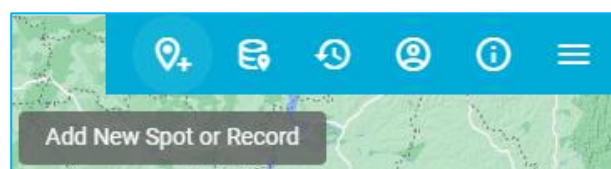

By clicking the **Next button,** you create the new spot, and then you can **add images** of that record either by selecting it from your device, or by dragging and dropping a file to the image field.

Both entering the spot name and adding an image are optional, however highly recommended steps.
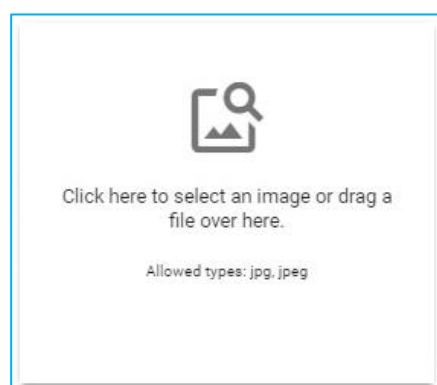
Adding new records to existing spots

It is also possible to add new records to existing spots. You can do that by selecting an existing spot (the D marker will turn red) on the map and then clicking the **Add new record for this spot (+) button** in the bottom right corner. After that, you must add the **Date** and **Hydro conditions** of the new record, and you can **add images** of that record either by selecting it from your device, or by dragging and dropping a file to the image field. Adding an image is optional, however highly recommended. When you provided all necessary information, click the **Save button** to save the new record to the spot.
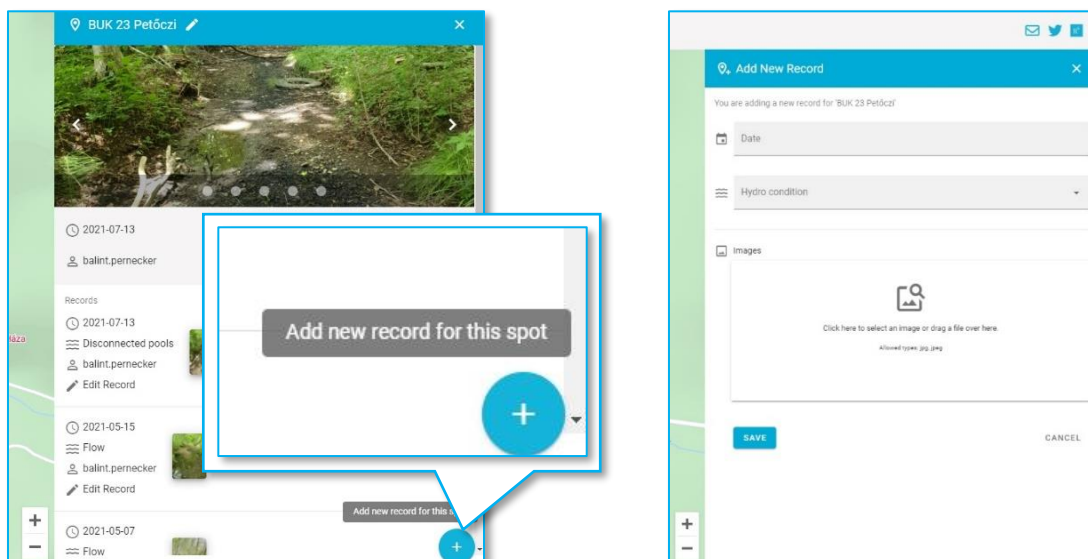

Editing existing spot or record

In the DRYRivERS web app it is also possible to edit existing spots and records. **You can edit only those spots and records that you have created**. Editing a spot or a record is done by clicking on an existing spot (D marker).

After that you can **edit the spot's details** by clicking on the **Pencil icon next to the spot's name**. You can **move the location** of the spot by dragging the spot's marker on the map. You can also **rename the spot** and **edit the spot's description**. It is not possible to delete existing spots.
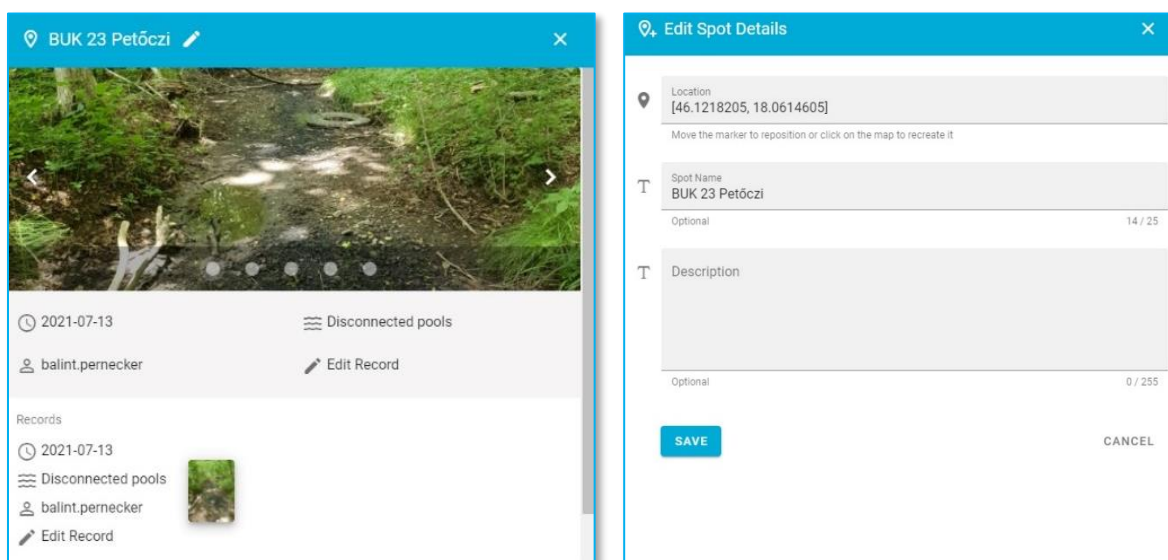
To **edit a specific record** of a spot first you must select an existing spot, and then you must choose the record by either scrolling through the records or by selecting the desired image with the **< and > signs** on the pictures. After you found the record you wish to edit click on the **Edit Record (pencil) button at the chosen record.** You can edit the record's **Date** and **Hydro conditions**, and you can **remove or upload images**.
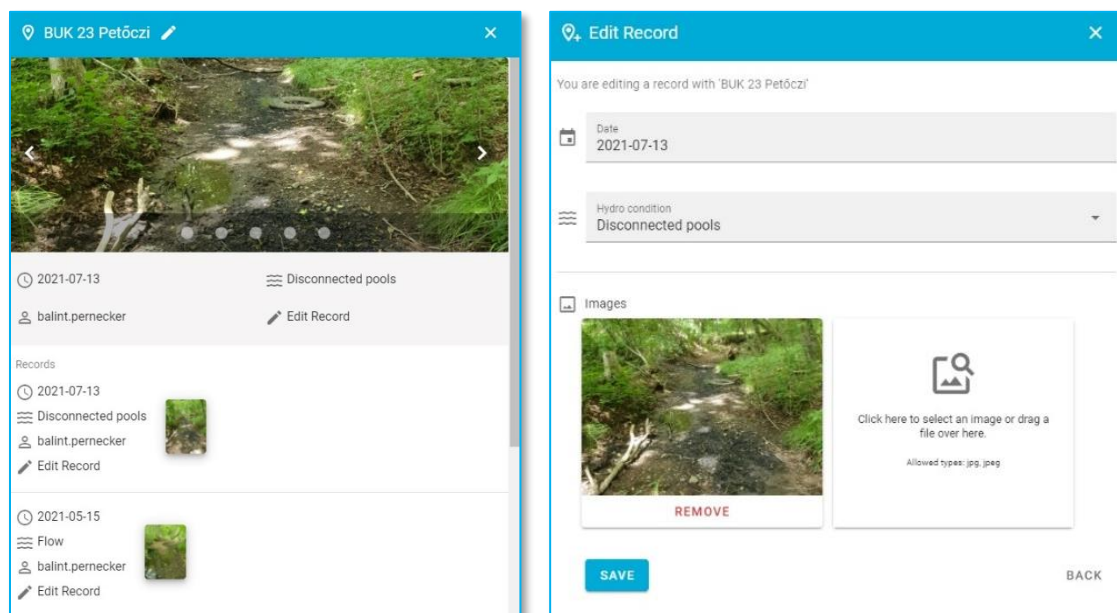

Downloading records

At the Download records menu, you can choose to download **only the records you have uploaded**, or you can download **all records**. In case you are a member of an institutional account, you can download the data uploaded by the institution too. To download data from the DRYRivERS database, you must **accept the Data Download Agreement**.
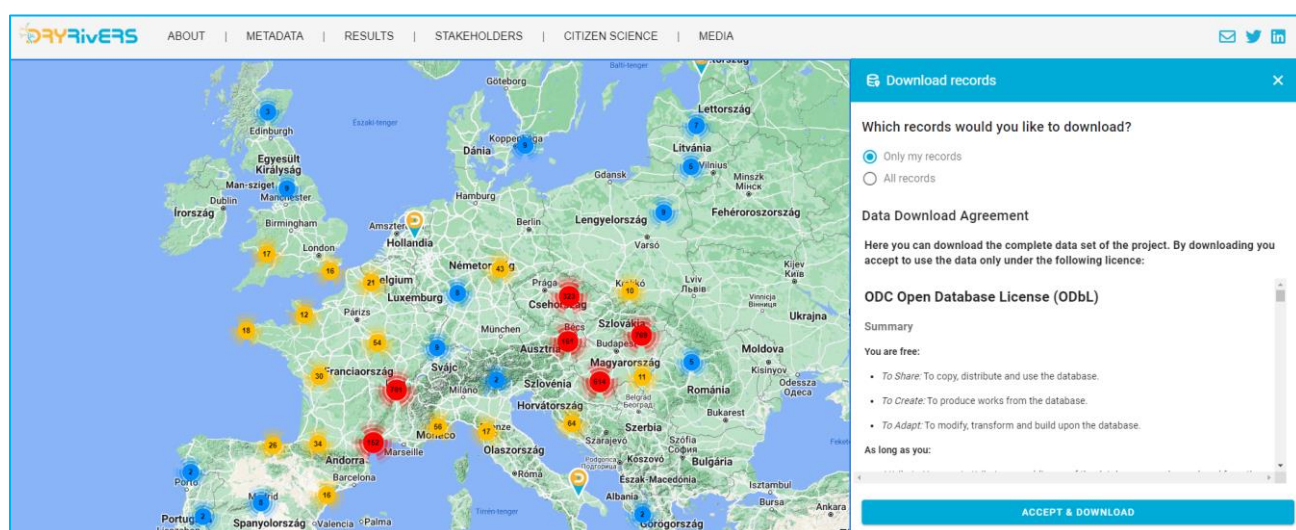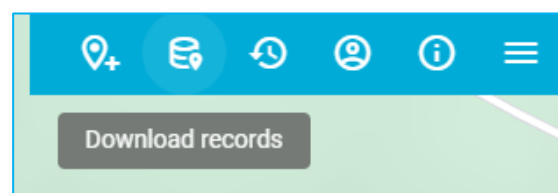
Using the Time machine & stats

By using the Time machine, the users can **filter** the displayed spots/records by setting a **timeframe** (From – To). Users can also filter by **hydro status** (only spots/records with the ticked statuses are shown on the map after submission). It is also possible to filter for all records or only the user's own records. If the "**Show last hydro status**" option is ticked, then the markers are colour coded to visualize the spots' last recorded hydro status.
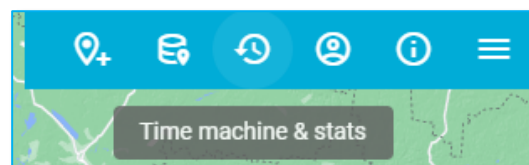
By clicking on the **Submit button**, the user will be redirected to the **Stats sheet** where they can view the number of registered users, uploaded spots, records, and images, the most active users, and the proportion of recorded hydrological condition types. In a separate sheet, users can check the **Most active spots** for the filtered timeframe too.

Users can export and download the filtered data as a .csv file too on the **Export sheet**.

Clicking the Submit button or selecting the Stats sheet without any filter will show the statistics of the **all-time dataset**. It is also possible to clear all filters by clicking the **Reset filters button**.

Profile

In the Profile menu you users can access their profile, where they can check their **notifications**, **badges**, their **own spots**, and their **profile information**.

It is possible to edit user profile details by clicking on the pencil icon.
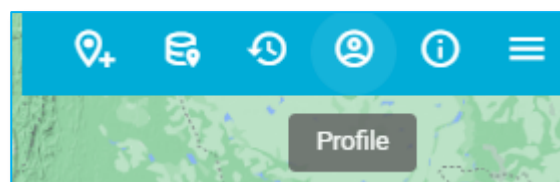
Gamification and a level-up system were also included in DRYRivERS. Users are rewarded with **points** and **badges** for creating spots and records and for completing **challenges**. Users can see how many points they have collected, and how many points they need to reach the next level.