



## BARRIER TRACKER

While AMBER is a pan-European project, we need the help of regional environmental/outdoor organizations that can harness the attention of their larger, local audience to use our barrier tracker app! Now is the time for us to map out the barriers within our rivers to better manage them and return them to 'good' ecological status. Here, you can find some important information about AMBER and the app and a PowerPoint presentation is also available for your use when explaining about the app to activate citizens! Please pick and choose the slides that work best for you and your audience. We hope this helps!

### What is the AMBER Project?

The Adaptive Management of Barriers in European Rivers (AMBER) project was initiated in 2016 to guide river management decisions along river basins within Europe. As part of this project, the consortium was tasked to create an Atlas that shows where barriers (dams, weirs, culverts, etc.) are within the 33 EU Member Countries. The Atlas is created by combining institutional data (barrier data collected or recorded mostly by administrations at a national) and regional data (collected mostly by administrations at a regional level) to get a sense of the number of barrier and their locations. However, there are gaps in these data and we still need to validate and perhaps enhance the Atlas with citizen science data.

### Where can you use this barrier tracker app?

Users can go out in their own back yards and hike along nearby rivers to record barriers that otherwise might not be recorded! By having these data, in each of the countries, we can validate if predicted densities (as a result of missing or incomplete databases) of barriers are, in fact, true. This can help inform how we can best manage barriers for a healthy river.

### What if I don't have internet to use the app while I hike?

Everything works exactly the same except for the location. Therefore, you simply store your record without submitting it (google maps won't work) and once you get a connection again you locate it manually with google maps and submit it.

### Why should you use this app?

The data will help inform the Atlas which will be a key tool for policy makers, water managers and conservationists, enabling them to maximise environmental benefits when decisions are made about which barriers should be removed or mitigated for. The Atlas will also play a key role to reduce environmental impacts in planning the construction of new barriers by providing data across entire river networks. The European Barrier Atlas is a work in progress which will be further developed during the course of the AMBER project. It will be published in 2019 on the AMBER website.

As we enter an era where our freshwater ecosystems are constantly under threat, this type of work is instrumental to make a difference. Understanding the barrier density and locations within rivers can help to provide some insight as to how better to manage the river to obtain a 'good' ecological status—as only 40% of our freshwater is classified as such! Because in the long run, barriers can affect our fishes, birds, plants, water quality, and availability of water.

So, please help us in tracking these barriers. Our Atlas needs this information, our environmental managers need this information and our rivers rely on us to keep them healthy! Spread the word, go on a adventurous hike and record those barriers!

### What type of citizen science data?

To obtain these missing data, we have created The Barrier Tracker app. It allows users to take a picture of a barrier within a river, record some details about the barrier (type, size, working conditions, presence of a fish pass, etc.) and its location. This data is then uploaded to our database and placed as a layer on our Atlas (completing the pie). Because while the institutional and regional databases provide a picture, it is not the whole picture and actually, still quite incomplete. And to make educated and well-informed river management decisions for the future health of our rivers, it is important for us to have the full picture. And this is why the citizen science data is so important to our work.

### Where do my records go?

The barriers that you record with the Barrier Tracker app can be viewed on the [AMBER Citizen Science Portal](#). All of the records you submit will be checked and verified before they're used to help complete the first ever European Barrier Atlas. The Atlas data will be made accessible and re-usable to all.

### Who can use this app?

We hope that the public, institutions, schools, boy/girl scout troops, water authorities, and river keepers alike may use this app not only to download and keep their own records of river barriers but also to help this international team create the bigger European picture and help mold future management decisions. By using this app, one has the opportunity to make a difference for the status of our freshwater ecosystems and guide authorities to make more informed decisions about barrier removal, management, adaptation or placement.

