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Improving European Stream Connectivity

Many European rivers are heavily fragmented by dams, weirs and other barriers that impact on ecosystem connectivity and cause a loss of natural capital. But dams also generate electricity and play an essential role in addressing water security, supporting agriculture and industry. Knowing which barriers to mitigate, and which ones to optimize, is key for effective restoration of stream connectivity. AMBER will apply adaptive barrier management to help reconnect Europe’s rivers, the smart way. We will make the first global assessment of stream connectivity across Europe, and use the power of citizen science and the latest developments in remote sensing, molecular methods and assessment of ecosystem services to prioritize areas for conservation and optimize barrier management. AMBER: Adaptive Management of Barriers in European Rivers.

Ambition

Restoration of stream connectivity requires actions at the catchment-scale that need to consider multiple taxa, and not merely the installation of traditional fish passes. Better adaptive management of physical barriers is thus needed. To this end, AMBER includes a range of innovative approaches:

Create the first global assessment of stream connectivity across Europe which will serve to highlight the areas where restoration is most needed.

Make the first application of eDNA for river restoration, and will provide an essential management tool for the prioritization of areas for conservation and barrier management.

eDNA: environmental DNA or DNA extracted from water and sediments.

Develop a comprehensive socio-economic and hydro-ecological framework for guiding the restoration of local river ecosystems and the ecological, genetic and analytical tools for its implementation.

Provide unparalleled opportunities for real time monitoring by turning citizens into stewards of the river’s natural capital using citizen science.

Find out how you can help: www.amber.international