## What can be discovered from the most elaborate aquatic citizen science project inventory in Europe?

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PREP4BLUE is a Horizon Europe initiative supporting the EU Mission: Restore our Ocean and Waters by 2030. Under the wings of this project, VLIZ has taken the lead in two critical tasks— (1) establishing a comprehensive public online database encompassing as many marine and freshwater citizen science projects as possible in Europe for the very first time, and (2) creating a roadmap with recommendations and good practices on aquatic citizen science.

To create the database, a web and social media search strategy was devised, covering a wide array of search terms in every European language, to uncover as many projects as possible. At the end, approximately 1,000 citizen science projects were identified, spanning a diverse spectrum of subjects and levels of engagement in aquatic citizen science. At the end of 2023, the database will be available on the P4B website to promote synergies and spark inspiration for future aquatic citizen science projects.

Next to the creation of the database, we set up an online survey and a series of in-depth interviews with a select group of the projects in our database. These interviews served as a platform for open conversations and knowledge sharing, aimed at identifying best practices within marine and freshwater citizen science. With the gained insights, a roadmap for marine and freshwater citizen science was constructed to help starting or running projects on their journey towards restoring our ocean and waters, with active engagement of citizens at its core.

This roadmap emphasizes social inclusivity within citizen science, shedding light on the nuances and considerations inherent in working with citizen scientists in aquatic environments. Moreover, it also serves as a critical tool in unveiling the areas where aquatic citizen science still awaits its full potential, uncovering the missing links that will further enrich our understanding and stewardship of these vital aquatic ecosystems.

## **Keywords**

PREP4BLUE; Aquatic Citizen Science; European Database; Good Practices and Recommendations