RIVER WATCHERS

See it. Snap it. Upload it.

DETECTING LITTER WITH AI

River Watchers is a citizen science campaign that invites everyone to photograph litter and upload it to a shared online platform. Using artificial intelligence, each piece of litter is identified and added to an interactive map.

Together, these contributions create a clear picture of pollution in our communities. This data helps guide cleanup efforts and supports better policy decisions to protect rivers and waterways.

3 WALKS, 3X IMPACT

A new citizen science approach goes one step further. We want to understand how much pollution accumulates in specific neighborhoods. You select a defined zone, document all the litter you find, clean it up, and upload your photos to RiverWatchers.be. You repeat this process three times, with three weeks between each measurement.

TURN LITTER INTO VISIBLE DATA

Litter is everywhere, but it often goes unseen and undocumented. Without clear data, it is harder to clean up pollution and prevent it in the future.

By joining River Watchers, you:

- Make litter visible in your local environment
- Contribute reliable data that guides cleanup efforts and informs decision makers
- Take shared responsibility for the places you care about
- Help improve AI systems for litter detection and classification
- Increase understanding of how and where litter accumulates

Your contribution becomes part of something larger, measureable, and impactful.

5 SIMPLE STEPS

It's quite simple:

- **Choose a location**: For example, a riverbank, a path along a river, a park, forest, or near your home. Select a stretch between 100 and 500 meters long and 1 to 2 meters wide. You can estimate the distance using Google Maps (right click → measure distance). Monitor the exact same zone all three times.

- **Take photos of all litter**: Start with a photo of your feet to mark the beginning. End with a thumbs-up photo to mark the finish. Include mesoplastics (5–25 mm in diameter). If you find many small pieces, take one photo and place a coin next to them to show scale.

- **Clean the litter**: You can team up with friends, family members, or colleagues.

- **Upload your photos** on RiverWatchers.be

- **Return two more times:** Visit the same zone with three weeks between each measurement (for example: March, April, May). Choose days that fit your schedule and consider weather conditions.

TIPS AND TRICKS

- Most important is to turn on your (GPS) location. If you are unsure about phone settings or photo instructions, visit RiverWatchers.be and consult the infographic.

- Make sure that when you make a picture, you can recognize the litter item yourself.

- Safety first. Follow traffic rules and stay alert, especially near roads.

- Use clear reference points for the start and end of your zone, such as a road sign. The zone must remain identical for each measurement.

- If you are going into nature, avoid disturbing wildlife, especially breeding birds.

- Materials to bring:
    - Gloves, trash bags, litter picker
    - Smartphone
    - Optional: walking boots, sun screen, rain coat, depending on conditions

- Take your time when choosing your zone. High quality data is more important than covering a large area. A smaller zone monitored carefully is better than a larger zone measured inconsistently. Also consider the amount of mesoplastics in your zone, as cleaning up a lot of them might be overwhelming.

Thank you for participating in this project. Your contribution helps us better understand litter accumulation and drive meaningful action toward cleaner rivers and communities.

If you have any questions, please contact Florian at **florian@river-cleanup.org**.

Example Zone

Example Mesoplastics

Exampel Macroplastic