

## Newsletter 3

### Citizen Science in our project AD4GD

Since August 2025, 25 dedicated lake guardians have been supporting the investigation of water quality in small lakes in Berlin. In addition, over 200 entries on water quality have been collected via the CrowdWater app since summer 2024.

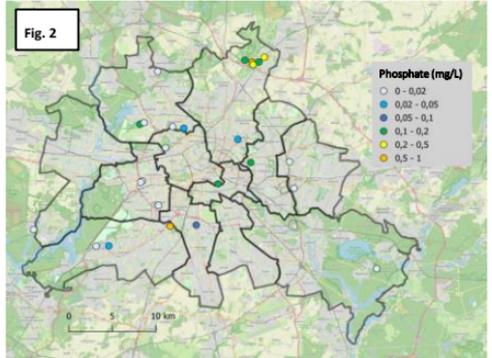
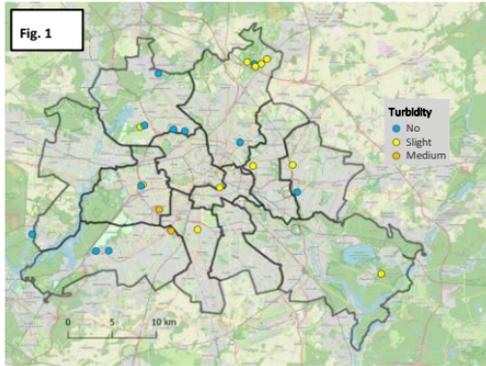
#### A big thank you to everyone involved!

The following graphs present initial evaluations of the measurement data collected so far.

### Evaluation of data from Water Ranger (phosphorus, turbidity)

Nutrients such as phosphorus and nitrogen play a crucial role in the ecological balance of our lakes. An excess of nutrients can cause considerable damage: algae blooms spread, the oxygen content in the water drops, and fish and other aquatic life die. Phosphorus – mostly in the form of phosphate – is particularly harmful, even though it is only available to plants in small quantities.

The turbidity of the lakes, shown in **Figure 1**, provides information about water quality. It is usually caused by algae and has a negative impact on the water. Fortunately, most of the tests showed only low to no turbidity.



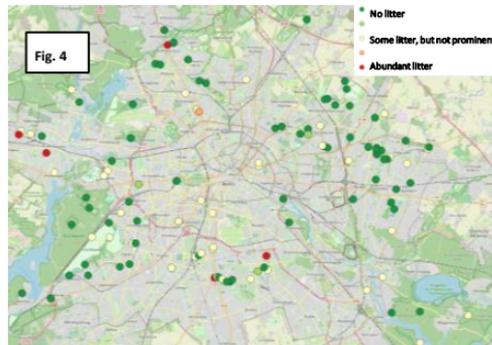
**Figure 2** shows the measured phosphate concentrations in the waters examined by our Water Ranger. Lakes shown in light and medium blue have no or only low levels of pollution. However, all other lakes are in the moderate to critical range.

### First analysis of CrowdWater App data

The CrowdWater app enables users to collect data on water quality and biodiversity in small lakes and ponds in Berlin. Numerous details were recorded using the app questionnaire.

**Figure 3** shows the depth view of the lakes observed. In most cases, visibility depths of a few centimetres to 50 cm were measured.

**Figure 4** documents the amount of litter – with encouraging results: in many cases, little to no litter was found.



You can find the latest results here: [Kompetenzzentrum Wasser Berlin](https://www.kompetenz-zentrum-wasser-berlin.de)  
Further information on downloading and use: [CrowdWater](https://www.crowdwater.de)