Berlin's small lakes
A treasure of urban nature

AD4GD
All Data For Green Deal

Newsletter 1

The challenge in Berlin

Small urban lakes play a crucial role in cities: they are valuable ecosystems and recreational areas, improve the quality of life, mitigate heat islands and are essential for sponge city concepts. Nevertheless, lakes under 50 hectares are not subject to a mandatory measurement programme. There are over 600 such small lakes in Berlin, but the data situation is inadequate. Measurement is complex, as each lake has to be considered individually and a large amount of different data is required to assess the situation.

The solution for Berlin

Initiatives and projects such as AD4GD address these challenges by combining sensor data and satellite images with practical experience and measurements. By involving residents in the measurements and observations, new data is generated and standardised, enabling automated data processing. This leads to the development of indicators for water quality and availability. Authorities can thus make evidence-based decisions for sustainable water management, optimise the management and enhancement of small lakes and ponds in the city and protect the ecological treasures for future generations.

First oxygen data collected with online probes

As part of the project, oxygen probes were installed at three lakes to automatically transmit data. These are intended to record typical diurnal fluctuations depending on the time of year. In conjunction with weather and water balance data, this results in primary production, which provides information on the trophic state of the lakes. The results are compared with measurement data on the nutrient balance in order to validate the method.

Water ranger wanted!

The campaign to monitor the water quality in Berlin's lakes and ponds has begun. Volunteer lake patrons independently carry out regular measurements and observations of turbidity, visibility depth, nutrients, temperature and salinity at a specific lake. At the start of the measurements, a personal introduction takes place in which all procedures are explained in detail. The collected data is then automatically analysed by us and forms a valuable data basis for Berlin.

Further information and registration options:
https://www.kompetenz-wasser.de/en/forschung/projekte/ad4gd-mitmachen

CrowdWater app adapted for monitoring lakes

Interested parties can use the CrowdWater app to monitor bodies of water and collect data on water levels, soil moisture, animal and plant life and pollution. The aim is to supplement existing monitoring programmes in the long term. The latest development now enables the targeted collection of data on lakes and ponds. To this end, volunteers are being sought to set up spots on Berlin's water bodies and enter data. There are already 30 entries on lakes and ponds in Berlin.

Further information on downloading and use: https://crowdwater.ch

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