



WATER APPS

BY

STREAM TEAMS UNITED

These water-related apps are essential to an effective stream team. Check them out below!



EPA bloomWatch

Do you notice that a lake suddenly turned the color of pea soup or a blue-green paint spill? Do you see green clumps, flakes, or filaments floating in a lake? You may be spotting algal blooms.

Blooms in freshwater bodies are commonly due to cyanobacteria and have the potential to produce toxins that affect humans, pets, and our ecosystems. State and local officials can't be watching every lake at all times, by using bloomWatch, you will help us understand where and when these organisms are popping up. Install the bloomWatch app on your iOS or Android device. Click the link below for an instructional video on the bloomWatch app.

Introduction video: <https://www.youtube.com/watch?v=X8YchtPkiFY>

Link to website: <https://cyanos.org/bloomwatch/>



EPA CyAN

The CyAN app provides an easy to use, customizable interface to scan water bodies for changes in cyanobacteria occurrence without requiring computer programming expertise. It provides water quality managers a user-friendly platform that reduces the complexities associated with accessing satellite data to allow fast and efficient initial assessments across water bodies that are $\geq 1 \text{ km}^2$. Users can view information about cyanobacteria concentrations on a national-scale or can zoom in to single-out data for a lake or reservoir. Because states and localities may address harmful algal blooms differently, users can determine their own thresholds for cyanobacteria concentrations. Users can also compare multiple water bodies at once, allowing for better-informed decisions based on recent changes at specific locations.

Available on iOS and Android devices.

Introduction video:

https://www.youtube.com/watch?v=09pIBld_6QU&t=11s

Link to website: <https://www.epa.gov/water-research/cyanobacteria-assessment-network-application-cyan-app>



CitSci

CitSci is a platform service for citizen science projects. Users involved in citizen science projects can add data and observations, where the project owner can manage and analyze that data. There are tools for executing the entire research process including building data forms, managing participants, etc..

There are many water quality projects on CitSci including those from Trout Unlimited and Stream Tracker. The staff will even help in the development process of project applications and provide special tools and mobile apps that will sync with CitSci. CitSci is supported by partner organizations including The National Science Foundation and Colorado State University. There is a CitSci mobile app (iOS and Android) that can find projects and upload observations after field collections.

Link to website: <https://www.citsci.org/>



Gaia GPS

Gaia GPS is considered the best fully functional GPS app by many stream team users. This app is especially useful for hiking, ATV riding, finding trails, and drawing trails. You can save the maps to your phone for offline use, as well as arrange your trip on a desktop. Get the app on iOS and Android, watch the introduction video, and explore the outdoors!

Introduction video: <https://help.gaiagps.com/hc/en-us>

Link to website: <https://www.gaiagps.com/>



iNaturalist

iNaturalist can be used to photograph macroinvertebrates, plants, and animals for identification. Photographs are uploaded through the app with date and location data, then identified by curators (authorities) in the app. These identifications may not immediately be answered, but are generally reliable (should be checked by user). It is one of the world's most popular ways to identify and report plants and animals. Users "own" the photographs they post, but the information is also shared to a network of over a million scientists and naturalists studying biodiversity. There are also projects that users can start and participate in as citizen scientists. It also has excellent features for students and educators. Available on iOS and Android.

Introduction video: <https://vimeo.com/157341038>

Link to website: <https://www.inaturalist.org/>

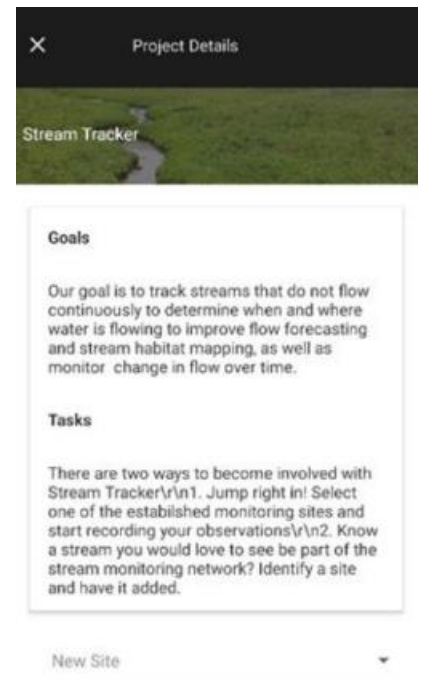


Stream Tracker with ANECDATA

Stream Tracker is an app and ongoing project that provides information on where streams exist and their conditions during observation. According to Stream Tracker, many intermittent streams do not exist on maps or the location is mistaken. This app aims to create a database of stream locations and flow conditions for all streams and fill in any unknowns. The user chooses their observation points (perhaps along a hike), records data when out, and uploads later when connected to Wi-Fi or cellular data. The app pairs with ANECDATA, a platform similar to CitSci. Download the ANECDATA app and search for Stream Tracker Project. Available on iOS and Android.

Link to website: <https://www.streamtracker.org/>

Link to download app: <https://www.streamtracker.org/get-involved>



EPA, How's My Waterway?

How's My Waterway was designed to provide the general public with information about the condition of their local waters based on data that has been provided to the EPA at the state, federal, tribal, local agency levels. This is an online app with an available widget and provides water quality information at the community, state, and national scale.

Fact sheet: https://www.epa.gov/system/files/documents/2022-10/HMW_Factsheet_10_03_22.pdf

Introduction video:

<https://www.youtube.com/watch?v=hqSLARmxHCM>

Link to website: <https://www.epa.gov/waterdata/hows-my-waterway>



PocketMacros

PocketMacros is a mobile app from Macroinvertebrate that is intended to be a digital tool to help citizen scientists identify larval stage insects (macroinvertebrates). The targeted audience are environmental teachers/students, fishermen, and water quality monitors. The app can be used in field guide, interactive identification key, and flashcard (practice) modes. The main site has an atlas of common macroinvertebrates. Available on IOS and Android.

Link to common macroinvertebrates:

<https://www.macroinvertebrates.org/>

Link to website: <https://www.macroinvertebrates.org/app/download>



Macroinvertebrates

Welcome to the companion app to macroinvertebrates.org, the Atlas of Common Freshwater Macroinvertebrates of Eastern North America.



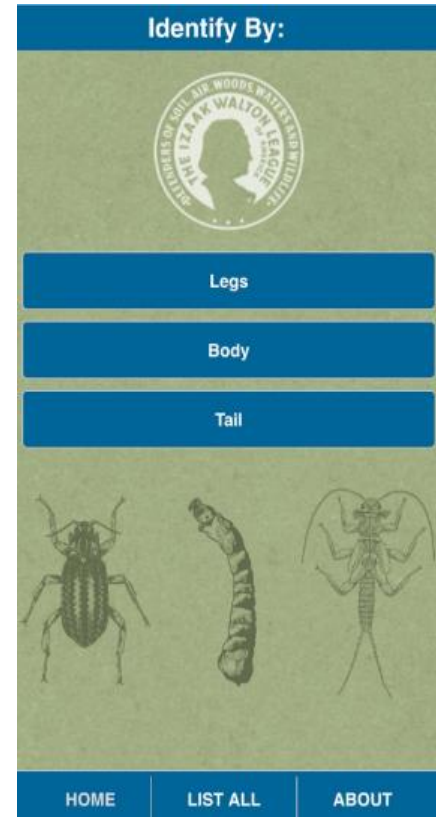
Next

Aqua Bugs

Aqua Bugs is an app that functions as a digital key for macroinvertebrate identification. Designed for beginning to intermediate users, as you answer questions you are led to macro-ID with simple drawings. It is an easy-to-use app key for the most common freshwater invertebrates found in freshwater streams throughout the U.S. Simple, clear, navigation is aided by descriptions, drawings, and photographs to illustrate aquatic animals. It also has an error detector to help find common keying mistakes. Available on IOS and Android.

Link to website:

https://www.iwla.org/docs/default-source/chapter-docs/clean-water-challenge-toolkit/save-our-streams/5-aqua-bugs-app-flier.pdf?sfvrsn=d6edd90d_2#:~:text=The%20Aqua%20Bugs%20app%20helps,description%20of%20its%20key%20features



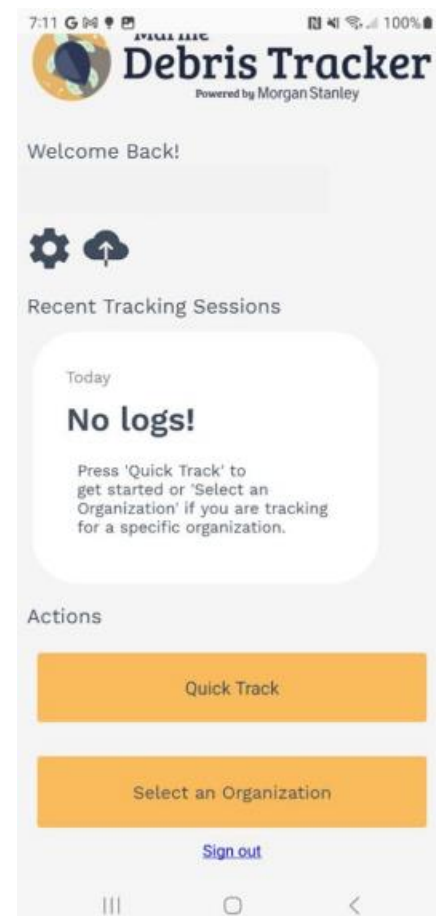
Marine Debris Tracker

Debris Tracker is designed to help citizen scientists contribute to the plastic debris tracking project that is taking place all over the world. There is not a lot of information on the site, but there is a well-represented resource library at <https://debristracker.org/resources/>. Available on IOS and Android.

Introduction video:

<https://www.youtube.com/watch?v=lhGvFLLp6dA&t=7s>

Link to website: <https://debristracker.org/>



Nurdle Patrol

Nurdles are plastic pellets that are pre-production raw materials used to make plastics. Since they are evident on beaches, sides of streams, and lake shores, it is clear that they are escaping into the environment and worsening the plastics problem. Nurdle patrol is an app that people can use to conduct their own nurdle patrol or survey (ex. How many pellets were found and where – makes for a great student science project!). Available on IOS and Android.

Introduction Video:

<https://www.youtube.com/watch?v=uk3fM92W5SA&t=37s>

Link to website: <https://nurdlepatrol.org/>

Nurdle expedition:

<https://www.youtube.com/watch?v=LcwNITA09ys>



Regrid

An app that shows private and public property lines. Regrid can retrieve detailed information on 155 million properties including owner and land use codes. The base package is free, however subscription offers more available features. Great for surveying possible cleanup locations. Available on IOS and Android.

Link to website: <https://regrid.com/property-app>



USGS National Water Dashboard

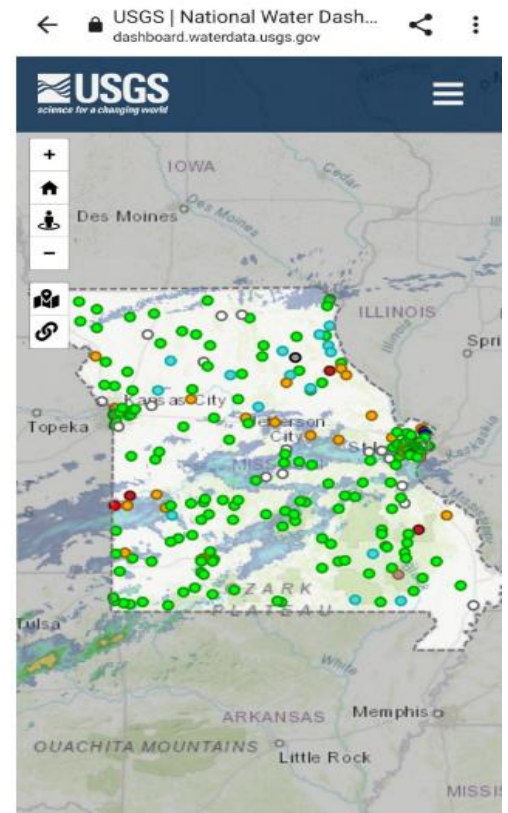
Not an app, but this website shows provisional real-time water data collected at the U.S. Geological Survey (USGS) observation stations in context with weather-related data from other public sources.

Q&A:

<https://dashboard.waterdata.usgs.gov/app/nwd/en/faq.html>

Link to website:

<https://dashboard.waterdata.usgs.gov/app/nwd/en/?region=lower48&aoi=default>



Report an Algal Bloom

If you think you see a harmful algal bloom, report it through one of the contact methods below!

- Fill out the Harmful Algal Bloom (HAB) Reporting Form
- Call the Missouri Department of Natural Resources' Environmental Response Spill Line: 573-634-2436
- Call the Missouri Department of Health and Senior Services' Public Health Emergency 24/7 Hotline: 800-392-0272

All submitted reports are reviewed by the Missouri HAB Response Team and added to the HAB Reports Map. The response team is made up of staff from Missouri's DNR, MDC, Department of Health and Senior Services, and Department of Agriculture. The best agency(s) to respond will be determined, and a team member will contact you to provide assistance, answer any questions you may have, or provide additional resources. The response team is also available to assist landowners, park officials, city leadership, other lake managers, and the general public with concerns related to harmful algal blooms.

Link to website: <https://dnr.mo.gov/water/how-water/pollutants-sources/cyanobacteria-harmful-algal-blooms-blue-green-algae/report-algal-bloom>