

Request for Approval under the “Generic Clearance for Citizen Science and Crowdsourcing Projects” (OMB Control Number: 2080-0083)

TITLE OF INFORMATION COLLECTION:

CyanoScope: Mapping Cyanobacteria One Slide at a Time

PURPOSE:

The main scientific goal of this ongoing project is to develop a national library of identified cyanobacteria photographs that can be used for spatial distribution and occurrence modeling.

NEED AND AUTHORITY FOR COLLECTION:

Safe Drinking Water Act § 1442, 42 U.S.C. § 300j-1, authorizes the Administrator to conduct research, studies, and demonstrations relating to the causes, diagnosis, treatment, control, and prevention of risks to human health related to drinking water supply, and to share information and make recommendations based on this research and investigation.

USES OF RESULTING DATA:

The data will be used for spatial distribution and occurrence modeling.

DATA COLLECTION METHODS:

After training and obtaining a digital microscope kit, citizen scientists collect water samples from local lakes or ponds and then take microscope photos of the cyanobacteria present in the samples. These photos are then shared on the cyanoScope project of iNaturalist (www.inaturalist.org/projects/cyanoscope). The iNaturalist site allows participants to interact with the cyanoScope community and have experts assist with genus and species level identification.

PARTICIPANT UNIVERSE:

Category of Respondent	No. of Respondents	Number of responses per respondent	Participation Time per response	Burden Hours
Participant	1000	10	1 hour	10,000

AGENCY COST: EPA labor costs are calculated using an hourly rate for a GS-14 (step 1) based in Washington, DC¹ including an additional 60% for overhead and benefits. This project is estimated to occupy approximately 50 hours of an FTE annually at a cost of \$3,952.

STATISTICAL ANALYSIS:

The data collected will be analyzed with spatial distribution and occurrence modeling. No contractor will be used for the survey.

¹ https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/18Tables/html/DCB_h.aspx

DATA QUALITY ASSESSMENT PROCEDURES:

This project falls under an EPA approved QAPP that has been operable since the inception of the project. Details regarding data collection, taxonomic verification and reconciliation, and enumeration are all covered within the approved QAPP and within the crowdsourcing database of iNaturalist.

ADMINISTRATION OF THE INSTRUMENT: (Check all that apply)

- Web-based or Social Media Mail
 Telephone Other, Explain
 In-person

INSTRUMENT: See screen shots documenting survey below.

CONTACT NAME: Alison Parker **EMAIL:** Parker.Alison@epa.gov

The screenshot shows the iNaturalist.org interface for adding an observation to the cyanoScope project. The page includes a navigation bar with links for Observations, Species, Projects, Places, Guides, and People. The user's profile 'alisonjparker' is visible in the top right. The main form is titled 'Add an observation to cyanoScope' and includes several sections: 'What did you see?' with a search field and a 'Was it captive / cultivated?' checkbox; 'Where were you?' with a 'Name of the place you made the observation' field and a map; 'When did you see it?' with a date and time selector; 'Description' with a large text area; and 'Add media' with 'Add photos' and 'Add sounds' buttons. A 'Select one or more photos' section shows 'Choose Files' and 'No file chosen' options, along with a 'Sync obs. w/ photo metadata?' checkbox. The map is a Google Maps view of the world, showing continents and oceans. The bottom of the page has a 'Tags' field and a 'Change geoprivacy' dropdown menu.

Fields for cyanoScope ?

Water Body Name
Name of lake, pond, or reservoir

City/Town

State
State (XX)

Sample Location
Description of where specifically the sample was collected

magnification
For microscope images what was the magnification?

More fields ?

Add a field ▼ [Create a new field](#) [View all fields](#)

[Save observation](#)
[Save and add another](#)
[Cancel](#)

Comments & Identifications

? kevinmelman's ID: Genus *Microcystis*, a member of blue-green algae (Phylum Cyanobacteria)
[Agree?](#)

Posted by kevinmelman 2 days ago

Observation © Kevin Melman
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Add a comment

Add an identification

[Save comment](#) [Preview](#)

Subscribe to this observation
 Mark as reviewed