
Amalia Handler
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Data and analyses are preliminary and subject to change.
**Cyanobacterial Assessment Network**

**Interagency Project**

Temporal coverage
- MERIS: 2008-2011
- Sentinel 3A/B: 2016-Present

Pixel size: 300 x 300 m

Resolved lakes: ≥ 3 pixels

Number of lakes: ~2,200

Current Android App

Web app in development
Web App - Access Latest CyAN Data
Mark Locations

- Add pins to a lake pixel
- Shows most recent value
- Trend relative to prior value
- Information associated with a single pixel
Compare Locations

- Locations in same or different waterbody
- Quick integrated view of waterbody data
Compare Locations

• Locations in same or different waterbody

• Quick integrated view of waterbody data

• View time series
Adjust Color Thresholds

Can be adjusted to levels of concern

Custom threshold for an alert
Using CyAN and National Field Surveys to Assess Microcystin Risk
Summarize CyAN Data for Summers

Weekly Imagery

CyAN Summer Bloom Magnitude

Mishra et al. (2019)
Scientific Reports
Lakes with Field Microcystin Data

Summer field survey concentration

Categorized based on threshold

CyAN Lakes: 2,200
CyAN-NLA Lakes: 210

Microcystin (µg/L)

0.1 1.0 10.0

Number of Lakes

Low CyAN Summer Bloom Magnitude High

Microcystin 0.2 µg/L Above Below
Likelihood of Threshold Exceedance

Microcystin 0.2 μg/L
Thank you!

Questions?

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Comprehensive Monitoring and Analysis
of Dynamics of Harmful Algal Blooms
Regional Applied Research Efforts Project