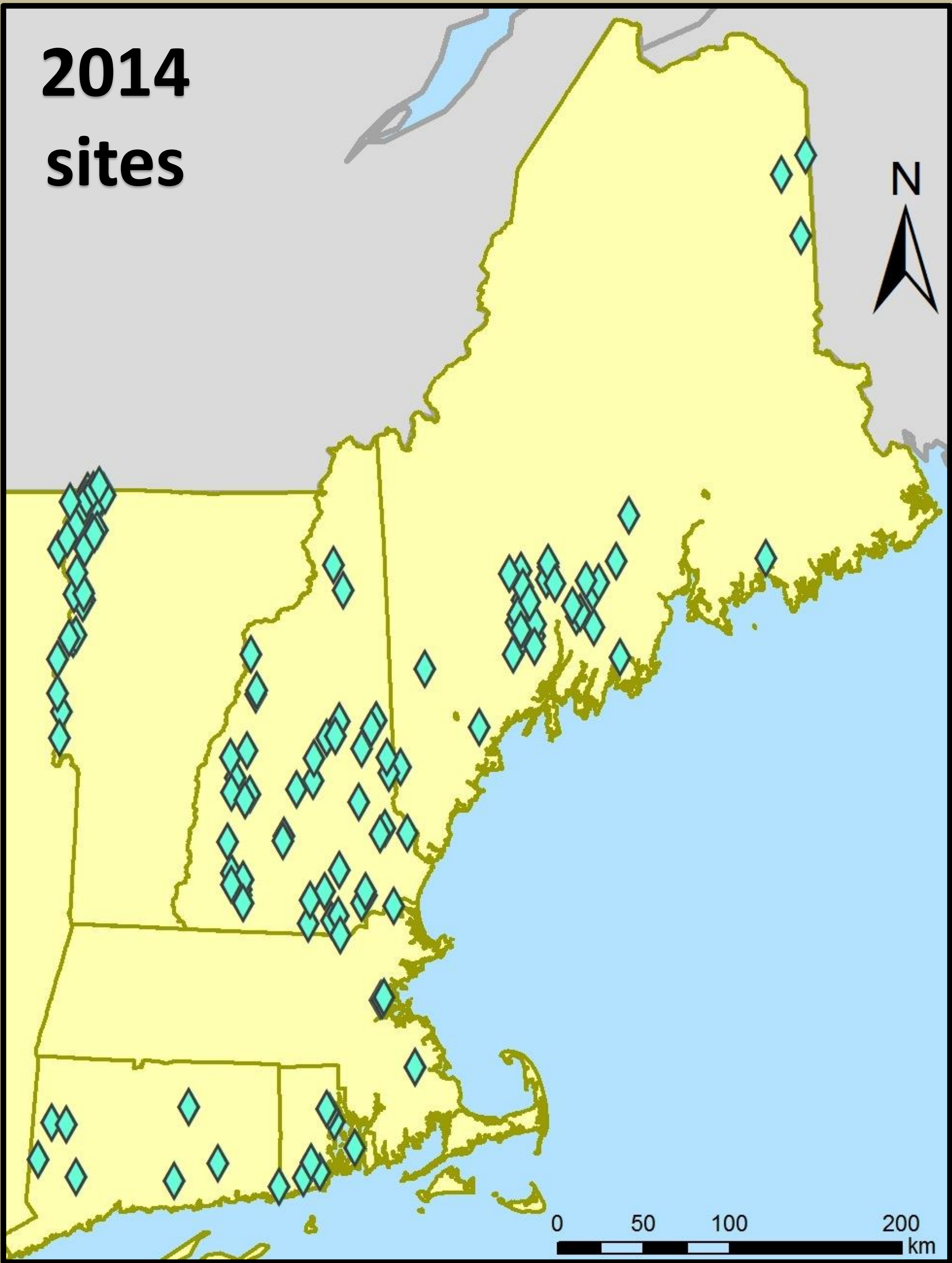
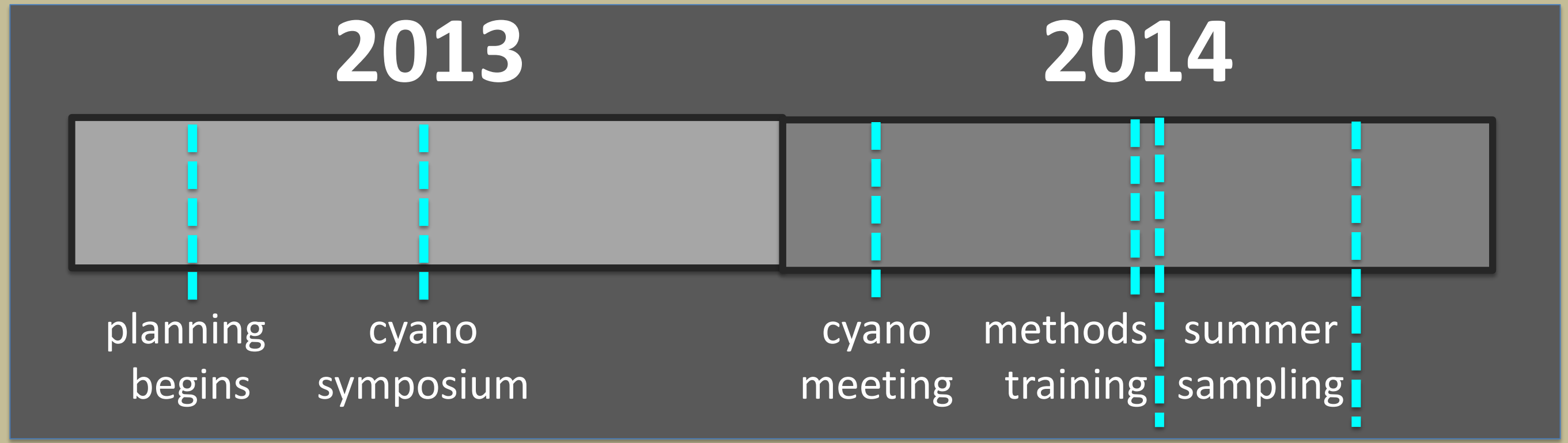


NEW ENGLAND CYANO WORKGROUP



- #Cyanobacteria Monitoring and Bloom Watch Members**
- Connecticut Dept. of Energy and Environmental Protection Chris Bellucci, Guy Hoffman, Tracy Lizotte
 - Maine Department of Environmental Protection Linda Bacon
 - Charles River Watershed Association Bryan Dore
 - Massachusetts Department of Environmental Protection Joanie Beskenis, George Zoto
 - Massachusetts Department of Public Health Mike Celona
 - Concord New Hampshire Water Works Pat Myers, Marco Phillipon
 - Lebanon New Hampshire Water Works Jim Angers
 - Manchester New Hampshire Water Works Kristin Conte, David Miller, John O’Neil, Cheryl Wood
 - Meredith New Hampshire Water Works Dan Leonard
 - New Hampshire Department of Environmental Services Sonya Carlson, David Neils, Paul Susca
 - New Hampshire Lakes Lay Monitoring Program Shane Bradt, Bob Craycraft
 - Pennichuck New Hampshire Water Works Chris Countie, Matt Day
 - Rochester New Hampshire Water Works Tim Green, Ian Rohrbacher
 - University of New Hampshire Center For Freshwater Biology James Haney, Amanda Murby
 - New York Department of Environmental Conservation Scott Kisbaugh
 - New York State Department of Health Eric Weigart
 - Rhode Island Department of Environmental Management Jane Sawyers, Brian Zalewsky
 - University of Rhode Island Watershed Watch Partnership Linda Green, Elizabeth Herron
 - Lake Champlain Basin Monitoring Program Eric Howe
 - Vermont Department of Environmental Conservation Angela Shambaugh
 - Comprehensive Environmental, Inc. David Cote, Natalie Knocki, Eileen Pannetier
 - Eastern Analytical, Inc. Kitty Lane
 - New England Interstate Water Pollution Control Com. Susannah King, Dan Peckham, Kimberly Roth
 - Penobscot Nation Angie Reed
 - USEPA Atlantic Ecology Division Jeff Hollister, Bryan Milstead, Hal Walker
 - USEPA Region 1 Laboratory Tom Faber, Diane Switzer, Katrina Kipp, Hilary Snook
 - USEPA Region 1 Toby Stover
 - United States Geological Survey Joe Ayotte, Marcus Waldron
- Connecticut | Maine | Massachusetts | New Hampshire | New York | Rhode Island | Vermont | No/Multi

A collaborative, regional approach to cyanobacteria monitoring and bloom detection in New England

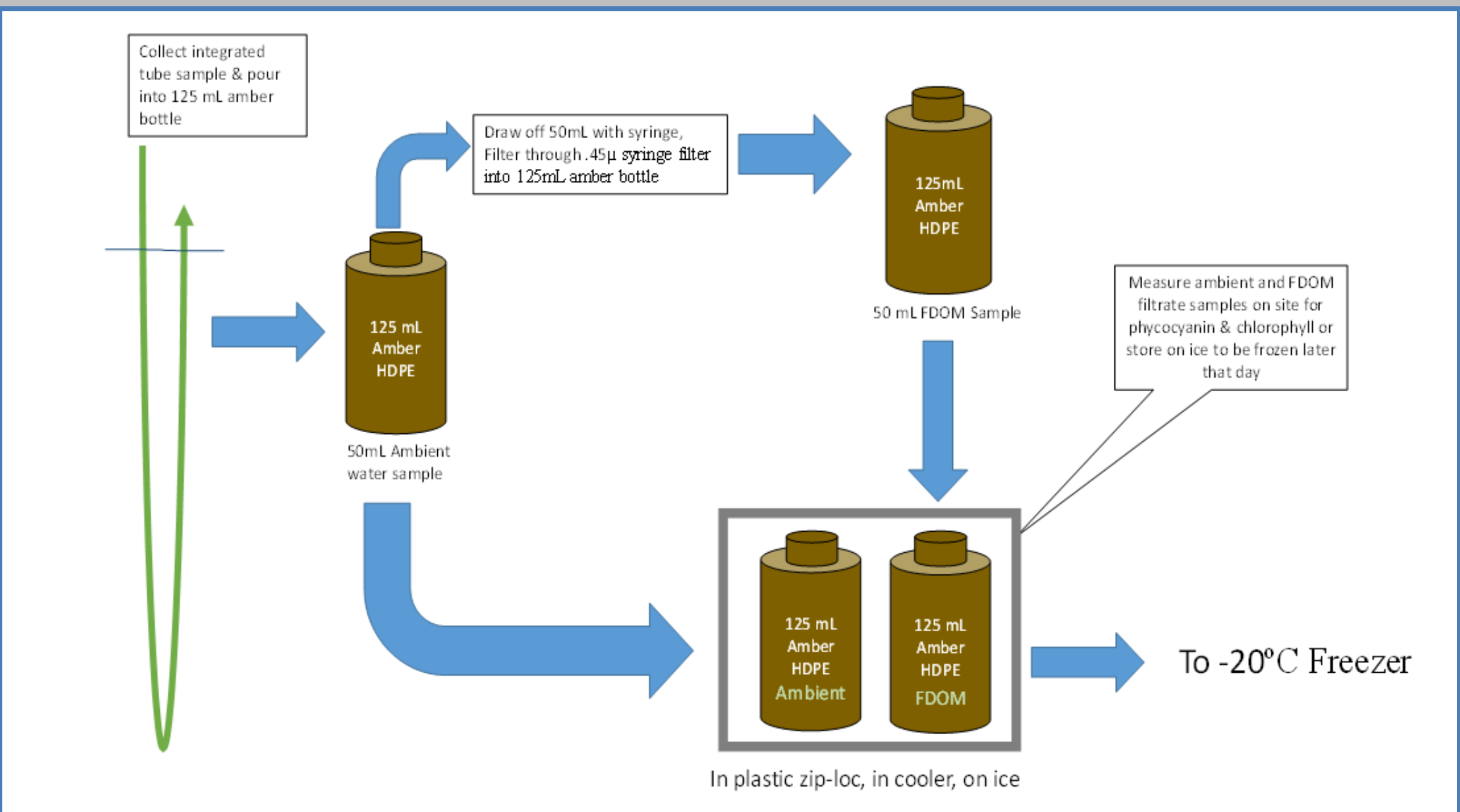
Shane Bradt^{1,2,*}, Hilary Snook³, James Haney², Amanda Murby², Other workgroup members[#]

¹ University of New Hampshire Cooperative Extension, ² University of New Hampshire Center for Freshwater Biology, ³ US EPA Region 1 Laboratory *shane.bradt@unh.edu, 603-862-4277, @limnoshane

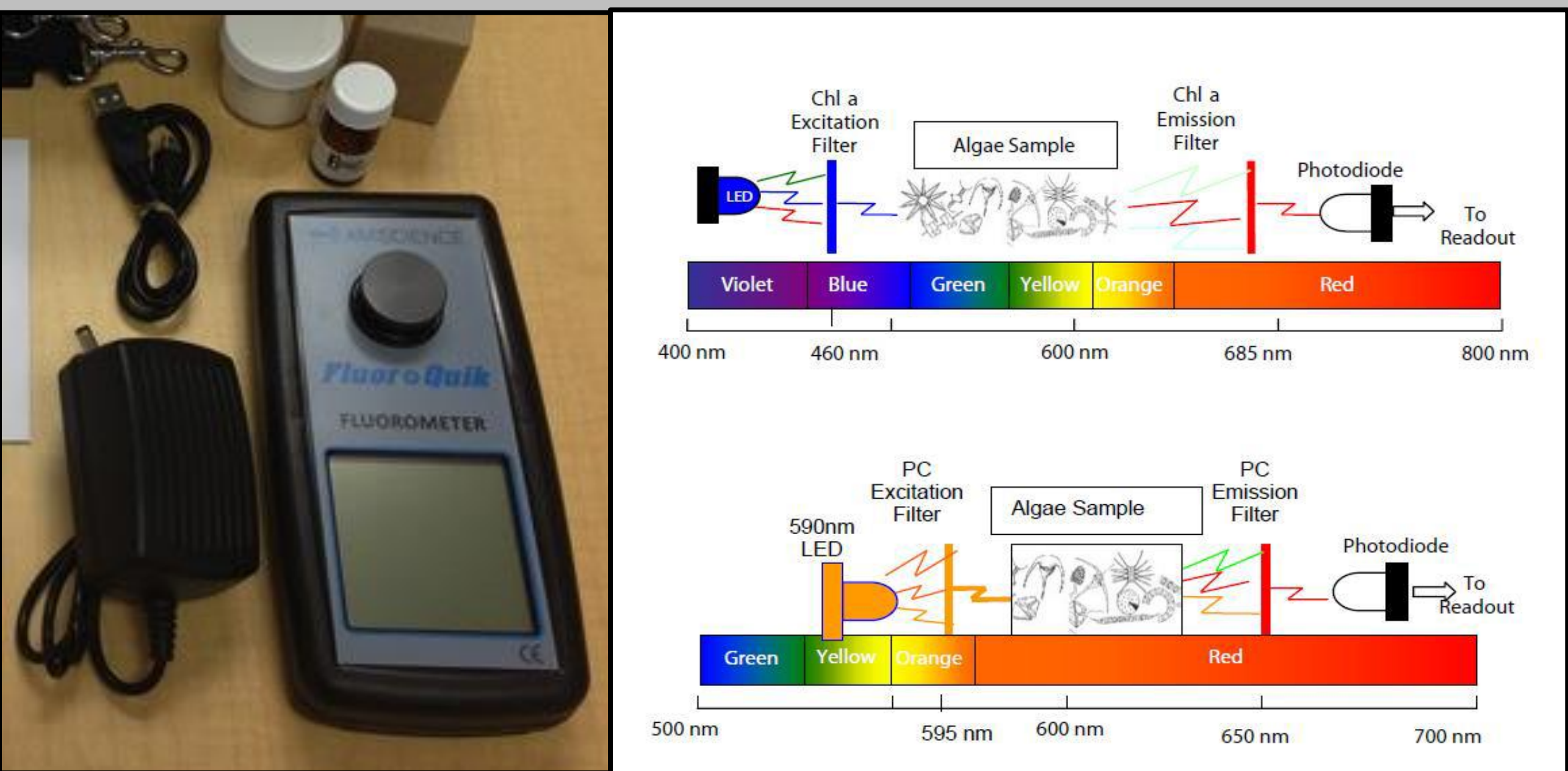
The New England cyanobacteria workgroup has developed and has begun implementing a two-prong approach
1) Cyanobacteria Monitoring and **2) Bloom Watch** to assess cyanobacteria in the region’s lakes and rivers

CYANO BACTERIA MONTORING

Lake water is collected to examine long-term and seasonal patterns of cyanobacteria



collected from shore or boat



analyzed for phycocyanin and chlorophyll

BLOOM WATCH

Harmful Cyanobacterial Blooms (HCBs) are observed, documented and reported to assess location, frequency and species composition

- Casual public** **Citizen groups** **Professionals**
- A B** **A B C** **A B C D**

anyone who notices a bloom can participate



smartphone camera



easy interactive cyano key



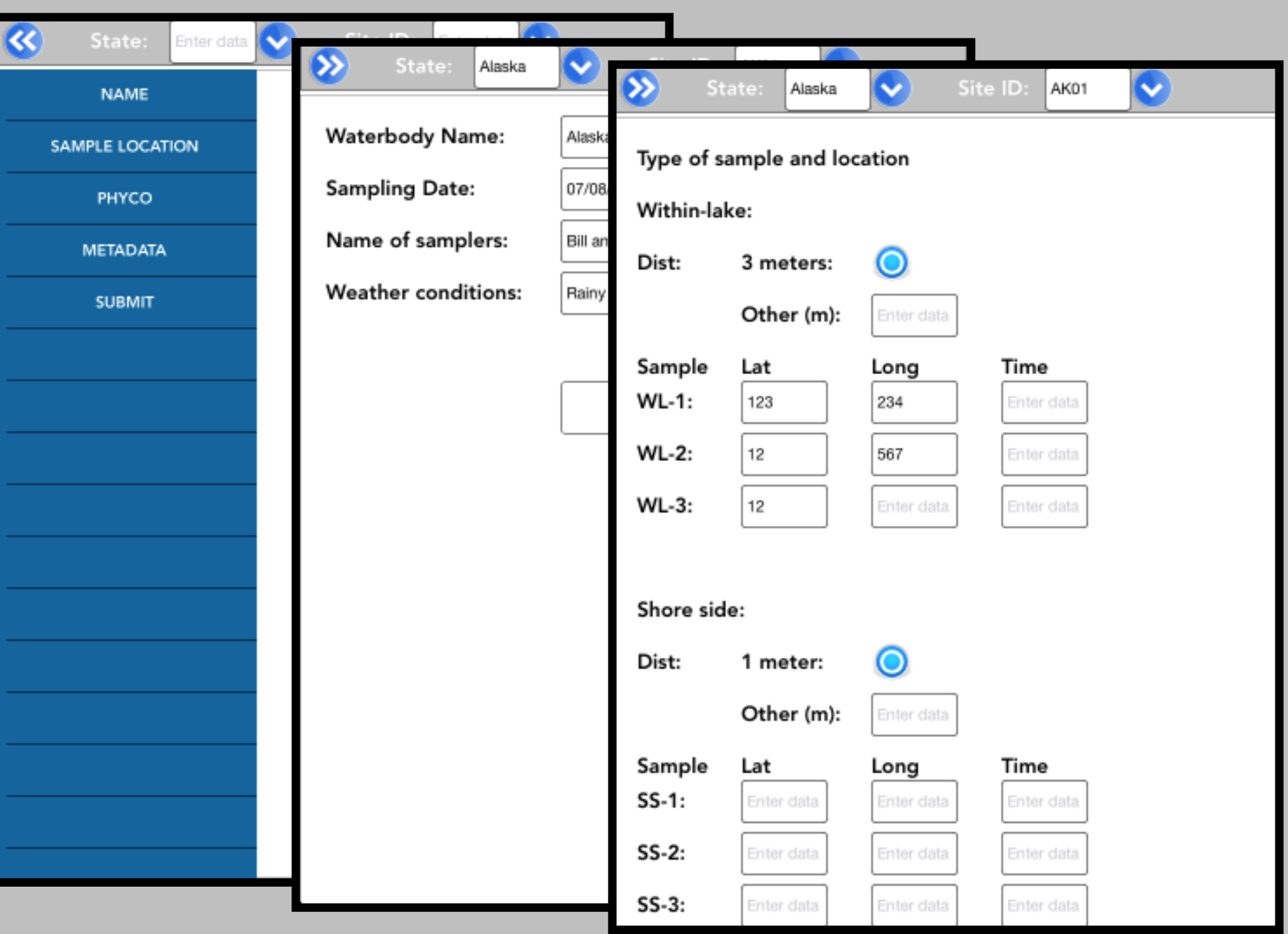
DIY smartphone microscope



laboratory microscope

MOBILE APP / CENTRAL DATABASE

Data from Cyanobacteria Monitoring and Bloom Watch will be synched to a database via a mobile app



GPS photos data

MAPPING / ANALYSIS

The database will be made available to a variety of users for a range of applications

- location and duration of HCBs
- vulnerability assessment
- geomorphology and landcover effects
- lake associations
- citizen awareness
- HCBs related to climatic factors
- seasonal cyanobacteria dynamics
- public health
- educational programs
- web-based maps of HCBs
- outreach and engagement
- local planning

scientific community general public education and outreach