

HAB working group

- Motivation, goals and role of water sampling are well established for HABs
 - Assess/characterize the spatio-temporal abundance/distribution of target spp. in real or near-real time
 - Need to acquire samples for laboratory validation of in situ measurements and/or to support lab-based analyses
 - Want to place targeted assessments in the context of the phytoplankton community dynamics in general
 - Want to place targeted assessments in the context of chemistry physics to the maximum extent possible

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- Target measurements
 - Context dependent (spp/region)
 - Species abundance, toxin concentrations w.r.t. “everything”
 - physics, chemistry, nutrients, physiology
 - Clear distinction between resource management and research
 - public health resource management may target specific seasons/locations
 - research still in discovery mode

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- Sampling specifics
 - Sustained presence with high frequency spatial/temporal coverage desired
 - flow Cytometry/imaging cytometry
 - proxy measurements (bulk chemistry, physics, optics)
 - Intermittent “high fidelity” collection/analytical events
 - food web toxin x-fer, molecular analytical, etc.
 - Fixed and mobile assessments desired
 - No major material incompatibilities identified
 - Generally, goal is to acquire and analyze/archive material immediately

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- Sampling specifics (contd.)
 - Generally need 100's ml-L's (nominal 0.5-1L)
 - Concentrate/preserve particles
 - » desirable to size fractionate/co-locate analyses
 - Need relatively rapid analysis/return (hr-days)
 - Opportunity for collecting/concentrating dissolved substances as well
 - » toxins, DOM using solid phase adsorption
 - » macro and micro nutrients by water return?
 - Better nutrient sensors desired
 - Need to better define sip, slurp, gulp!