

GLOBAL SOLUTIONS TO REGIONAL PROBLEMS:

Collecting Global Expertise to Address the Problem of Harmful Algal Blooms

Workshop Topic Areas

- Biology of bloom species
- Detection of blooms and toxins
- Bloom prediction and modeling
- Nutrient sources and land management
- Economic impact and incentives for bloom prevention
- Case studies on bloom mitigation

Meeting organization

The Workshop will take place over two full days, and will consist of a series of introductory presentations in specific topic areas, followed by roundtable discussions. The roundtables will break the participants into smaller groups of approximately 8 persons each, and after a 20 minute discussion, the tables will report out to the group at large. For the remainder of the discussion period, the discussion leaders will then synthesize comments from the smaller groups to develop consensus in each topic area. As indicated above, discussions will focus on knowledge gaps, future research strategies to address these gaps, and current efforts applied to address CHAB events. The topics discussed over the Workshop are as listed below.

DAY ONE

(proposed presenters/discussion leaders in parentheses)

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|---------------|---|
| 8:30 – 8:45 | Welcome and charge to the Workshop participants (George Bullerjahn, Robert McKay and Timothy Davis, BGSU and NOAA GLERL) |
| 8:45 – 9:30 | Presentation – Biology of HAB species (Steve Wilhelm, The University of Tennessee) |
| 9:30 – 10:15 | Discussion – Knowledge gaps/research priorities for HAB species (Raphael Kudela, University of Santa Cruz and Chris Gobler, State University of New York, Stony Brook) |
| 10:15 – 10:30 | Break |
| 10:30 – 11:15 | Presentation – Bloom and toxin detection (Greg Doucette, NOAA) |
| 11:15 – 12:00 | Discussion – Research priorities for detection methods (Tim Otten, Oregon State University and Tim Davis, NOAA-GLERL) |
| 12:00 – 12:15 | Group discussion – What common themes/issues/priorities are emerging? |
| 12:15 – 1:15 | Lunch |
| 1:15 – 2:00 | Bloom prediction and modeling (Rick Stumpf, NOAA) |
| 2:00 – 2:45 | Discussion – Research priorities for improved forecasting (Rick Stumpf, NOAA and Joe Ortiz, Kent State University) |
| 2:45 – 3:00 | Break |
| 3:00 – 3:45 | Presentation - Nutrient sources and land/lake management (Dave Baker, National Center for Water Quality Research, Heidelberg University) |
| 3:45 – 4:30 | Discussion – Future goals for land management and nutrient loading (Lesley D'Anglada, US EPA) |
| 4:30 – 5:15 | Group discussion – summary of Day One |
| 6:30 – 9:00 | Poster session and refreshments, sponsored by University of Michigan |

DAY TWO

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|---------------|---|
| 8:30 – 9:15 | Presentation - Economic impacts and incentives for bloom prevention (Cathy Kling, Iowa State University) |
| 9:15 – 10:00 | Discussion – Future economic incentives and interventions for bloom prevention (Elena Irwin and Brent Sohngen, The Ohio State University) |
| 10:00 – 10:15 | Break |
| 10:15 – 10:45 | Presentation: – CHAB occurrences worldwide – recent insights (Rainer Kurmayer, Universität Innsbruck, Austria) |
| 10:45 – 11:15 | Presentation – Case studies on CHAB control – successful or otherwise (Petra Visser, University of Amsterdam, Netherlands) |
| 11:15 – 12:00 | Discussion – CHAB mitigation/prevention: what works and what doesn't? (Hans Paerl, University of North Carolina and Boqiang Qin, Nanjing Institute of Geography and Limnology, China) |
| 12:00 – 1:00 | Lunch |
| 1:00 – 4:00 | Synthesis group discussion – Future research priorities and current best practices (Workshop Chair and Co-organizers) |
| 5:30 – 7:30 | Stakeholder HABHRCA Open Forum (Moderator: Greg Boyer, State University of New York, College of Environmental Science and Forestry) |

The immediate product of the Workshop will be an outline of a position paper that will present future research priorities (addressing knowledge gaps) and current best practices for bloom prevention, detection and mitigation (from case studies of CHAB event responses).

Sponsoring agencies:

