Regional Workshop on Monitoring and Management Strategies for Benthic HABs

GlobalHAB
Global Harmful Algal Blooms

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GlobalHAB
Global Harmful Algal Blooms

SCIENCE AND IMPLEMENTATION PLAN

Regional Workshop on Monitoring and Management Strategies for Benthic HABs/ MOW
Musée océanographique - Monaco, 9th to 12th April
Benthic HABs

New tools are necessary to manage and mitigate the impacts of benthic blooms on human health and the environment.

Global Harmful Algal Blooms - GlobalHAB - an international science programme on HABs building on the foundations of GEOHAB

An international programme sponsored jointly by the Scientific Committee on Oceanic Research (SCOR) and the Intergovernmental Oceanographic Commission (IOC) of UNESCO.

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The GlobalHAB Goal and Mission

GOAL
To promote coordinated international scientific activities, to improve understanding, prediction, management and mitigation of HABs in aquatic ecosystems.

MISSION - GlobalHAB will:
• Address the scientific and societal challenges of HABs, including the environmental, human health and economic impacts, in a rapidly changing world.
• Consolidate linkages with broader scientific fields and other regional and international initiatives relevant to HABs.
• Foster the development and adoption of advanced technologies.
• Promote training, capacity building and communication of HAB research to society.
• Serve as a liaison between the scientific community, stakeholders and policy makers, informing science-based decision making.
GlobalHAB Themes

OBSERVATIONS

Climate change
Aquaculture
Freshwater
Biodiversity
Toxins
Benthic
Physics
Culture

Comparative Approach

Freshwater
Biodiversity

Adaptive Strategies

Nutrients
planktonic

Economy

GlobalHAB	Themes

MANAGEMENT ADVICE

MODELS/PREDICTIONS
HABs and Aquaculture

Overall objectives:
* To determine the link between marine aquaculture and HAB occurrence in different regions
* To find efficient methods to protect farmed seafood products from HABs impacts.

Some implementation activities:
- Inter-laboratory validation study on mass spectrometry methods of PSP-toxin analysis. (L. Mackenzie, CEFAS-Cawthron activity).

- International collaboration - development and field trial of new technologies for the monitoring, forecasting and mitigation of HABs for aquaculture.

- Workshop about the mode of action of fish-killing microalgae (and other related issues), in coordination with the Task team on "Fish-killing HABs". (Leaders: A. Cembella, P.T. Lim)
HABs in freshwater and cyanobacterial HABs from marine to freshwater systems

Overall objective: To develop a global perspective in advancing the science and management of freshwater HABs, and cyanobacterial HABs in marine, brackish and freshwater habitats.

Some potential implementation activities:
- Summary for Policy Makers.
- Training workshops on taxonomy and toxin analysis, monitoring and mitigation procedures in developing countries, with liaisons with relevant agencies (e.g. WHO).
Overall objective: To understand global patterns in HAB responses to common drivers (thermal windows, stratification, changing levels of CO$_2$).
**Climate Change and HABs**

Some on going implementation activities:


* Good-practices manual for the study of Climate Change on HABs. Leader: M. Wells, GlobalHAB SSC members, other (tbd). In collaboration with PICES, ICES and IPHAB.
Observation, Modelling, and Prediction

Some implementation activities:
• Special sessions on observation tools at ICHA, ASLO, phycological meetings, Ocean optics, Trait-based Approaches to Ocean Life workshop series, etc.

• Foster interactions with the activities projected by ICES-IOC WGHABD, HAEDAT, OBIS.

• Active cooperation with GOOS (Global level), Regional level ROOSes, EuroGOOS.

• Maintain an active participation in the revision of OSPAR on phytoplankton monitoring guidelines.

• Foster active interaction with the EU Marine Strategy Framework Directive.
**Human and Environment Health**

**Overall objective:**
*To increase collaborations among*
* HAB scientists
* medical, veterinary, public health,
* social science expertise to help minimize the risk of HAB impacts to human and anima health.*

**Some implementation activities:**
- Endorse and participate in the implementation of the coordinated IOC-IAEA-FAO-WHO "Global Ciguatera Strategy".
- Collaboration activities with FAO and WHO
- Science/stakeholder forum to advance in the evaluation of the economic impact of HABs.
Some potential Implementation activities:


- **2020-2022.** Outcome activities from the Workshop in Monaco?
Interaction with international programmes that have HAB research as a term of reference is fundamental for the success of GlobalHAB.
Global Harmful Algal Blooms - GlobalHAB - an international science programme on HABs building on the foundations of GEOHAB

SCIENCE AND IMPLEMENTATION PLAN

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Invitation to participate

GlobalHAB APPLICATION FORM FOR ENDORSEMENT OF ACTIVITIES
To be completed in English and sent to the Chair of the GlobalHAB SSC.
For further guidance consult the Chair and/or Vice-chair of the GlobalHAB SSC.

1. **PROJECT TITLE:**
   Planned duration of activity, from : to:

2. **APPLICANT(S):**
   Name and title:
   Address:
   Tel/Fax:
   E-mail:
   Home page URL: (if applicable)

3. **PROJECT DESCRIPTION:**
   Attach brief summary or abstract. One page is sufficient; no more than five pages please.

4. **BENEFITS FROM GlobalHAB:**
Benefits
Researchers that participate in international GlobalHAB will receive the following benefits from their association with the programme:

• GlobalHAB will provide the justification and resources for international standardization and intercalibrations of sampling methods, observations, modeling, and toxins quantification worldwide.
• GlobalHAB will assist the efforts of PIs and agencies to secure funding via letters of support and endorsement for research proposals and initiatives.
• GlobalHAB will support the communication and knowledge on HABs to the public, managers, and policymakers.
• GlobalHAB will facilitate establishment of links with other relevant international programmes and related projects also endorsed by GlobalHAB.
• GlobalHAB will facilitate dissemination of project information through newsletters, web site and other communication mechanisms.

Responsibilities
Communication of project progress with the GlobalHAB SSC for inclusion in the newsletters, web sites and other communication mechanisms.
Acknowledgement of endorsement by GlobalHAB in scientific publications, and provision of copies of scientific publications for listing as GlobalHAB Programme outputs.
Active involvement of the scientific community studying HABs is fundamental for the success of GlobalHAB

GlobalHAB Town Hall Meeting at ICHA17 (May 23, 2016)

If you plan to attend the ICHA17 meeting in October in Florianópolis, Brazil, then you may wish to attend the Town Hall meeting on GlobalHAB, the new International SCOR-IODC program for the study of HABs launched in January 2016. GlobalHAB follows the legacy of the former GEOHAB program, incorporating new themes, as was recommended by the international scientific community at the GEOHAB Open Science Meeting in Paris, April 2013.

The overall goal of the new programme is to foster activities to stimulate scientific advances leading to a better understanding of harmful algal blooms and to contribute to the mitigation of their impacts. Members of the GlobalHAB SSC will present the programme and how it is expected to develop over the next decade, as well as the specific activities proposed for the next three years. The international HAB research community is invited to actively engage in GlobalHAB. Thus, the Town Hall is a fantastic opportunity to discuss the Scientific and Implementation Plan of the new programme, and to identify ways of dynamic participation.

The Town Hall meeting will:
- Highlight the main pressing issues that face the international harmful algal bloom (HAB) science community, including e.g. toxin-related challenges, impacts of aquaculture on HAB occurrences, the potential climate change impacts on HABs occurrence in freshwater and marine ecosystems, etc.
- Identify specific activities to address these topics.
- Facilitate interactions among scientists interested in implementing GlobalHAB-related activities.
- Discuss science/stakeholder forums to assess the potential socio-economic impacts of HAB occurrences and to engage the medical community to improve human health protection.
- Foster and develop links with existing international and regional initiatives that have HAB research among their priorities, fundamental for the implementation of GlobalHAB.

This session will help make the new programme relevant to contemporary and future research, funding, and management priorities, continuing to ensure an international approach based on science.

Conveners:
Eliès Berdalet (Chair), on behalf of the GlobalHAB Scientific Steering Committee (SSC), berdalet@icm.csic.es; Hennik Enwoldt (IODC/UNESCO), h.enwoldt@unesco.org

more news -
Welcome to the IOC Harmful Algal Bloom Website

The overall goal of the IOC HAB Programme:

To foster the effective management of, and scientific research on, harmful algal blooms in order to understand their causes, predict their occurrences, and mitigate their effects.

Thirteenth Session of the IOC Intergovernmental Panel on Harmful Algal Blooms (IPHAB-XIII) was held 3-5 May 2017, at UNESCO Headquarters, Paris, France. Access documents and report here.

IOC Identification Qualification in Harmful Marine Microalgae (OPEN FOR APPLICATIONS)

Please report errors, broken links and comments to h.enevoldsen@unesco.org

Harmful Algal News

IOC-IAEA GUIDE FOR DESIGNING AND IMPLEMENTING A PLAN TO MONITOR TOXIN-PRODUCING MICROALGAE

The IOC and IAEA are proud to announce the publication of IOC Manuals & Guides no 59: This manual is intended as an introduction to basic analytical techniques that can be applied when designing a...

First ever manual on desalination and harmful algal blooms

UNESCO Publishing issues first ever manual on desalination and harmful algal blooms 12 October 2017. UNESCO’s Intergovernmental Oceanographic Commission will launch the first ever guidebook on the...

From the scientific literature:

Harmful algal blooms and climate change: Learning from the past and present to forecast the future.

Mark L. Wells 1,*, Vera L. Trainer 2, Theodore J. Smayda 3, Bengt S.O. Karlson 4, Charles G. 5

ORDER NOW:

Upcoming Events

Scientific Steering Committee Meeting
9 – 12 April 2018
Villefranche-sur-Mer, France

Workshop on Monitoring and Management Strategies for Benthic HABs
9 – 12 April 2018
Monaco, Monaco

Inter-agency Meeting on a Joint Strategy on ciguatera Fish Poisoning
12 April 2018
Monaco, Monaco

Working Group on Harmful Algal Bloom Dynamics
23 – 26 April 2018
Sant Carles de la Ràpita, Spain

4th International Symposium: The Effects of Climate Change on the World’s Oceans
4 – 8 June 2018
Washington DC, United States

More events...
Harmful Algae News
AN IOC NEWSLETTER ON TOXIC ALGAE AND ALGAL BLOOMS
No. 59 - February 2018  •  www.ioc-unesco.org/hab

Content
25 years of HAN and IPHAB.....  1
Invited contributions
A retrospective look at HAB cyst research (DM Anderson) .....  4
How do algal blooms kill finfish (G Hallegraeff) ..................  9
The IOC Taxonomic Reference List of Harmful Microalgae (Ø Moestrup) .......................... 12
Algal toxins over the last 25 years (P Hess) .......................... 15
GlobalHAB – a new initiative in the HAB community

GlobalHAB, the new international scientific programme on Harmful Algal Blooms (HABs) was launched this year. The first meeting of the newly formed GlobalHAB Scientific Steering Committee (SSC) was hosted at the Scottish Association for Marine Science (SAMS) in Oban, Scotland from 8 to 10 March 2016. GlobalHAB is an initiative under the auspices of the Scientific Committee on Oceanic Research (SCOR) and the Intergovernmental Oceanographic Commission of UNESCO (IOC). GlobalHAB builds on the wealth of scientific results delivered through the recently completed Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) programme (www.geohab.info).

The steering committee has representatives from across the globe (Fig. 1): from IOC and Ed Urban from SCOR assisted the GlobalHAB SSC and provided input from sponsoring organizations.

In this first meeting, with a positive and active atmosphere, the participants defined the fundamental elements that will structure the GlobalHAB Science and Implementation Plan is expected to be completed by June 2016:

The mission of this cutting-edge programme is to improve understanding, prediction, management and mitigation of HABs in aquatic ecosystems.

The scientific goals of GlobalHAB include:

- To serve as a liaison between the scientific community, stakeholders and policy makers, promoting science-based decision making.

A range of implementation activities were identified to be undertaken in the next three years and beyond. Namely, workshops and open science meetings will specifically address toxin-related challenges (detection methods, action mode, molecular basis), evaluate the impacts of aquaculture on HAB occurrences in different regions, and ascertain the potential climate change impacts on HABs occurrence in freshwater and marine ecosystems. Science/stakeholder forums will be organized to assess the potential socio-economic impacts of HAB occurrences and to
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Training program
GlobalHAB follows on GEOHAB

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Thanks for your attention!!!