



2023 SCOR Annual Meeting ♦ Guayaquil, Ecuador 17-19 Oct 2023

SSC members until Sept 2023

Elisa Berdalet (Chair)
Clarissa Anderson
Neil Banas
Hae Jin Jeong
Bengt Karlson
Po Teen Lim (Vice-chair)
Malin Olfsson
Heather Raymond
Raffaele Siano
Susie Wood
Aletta Yñiguez

Liaisons:

Dave Clarker – ICES-IOC WGHABD
Philipp Hess, Maggie Broadwater - IPHAB
Vera Trainer – PICES and ISSHA
Raphael Kudela – GOOS Biology and Ecosystems Panel & IPCC

Sponsors Representatives:

Henrik Enevoldsen – IOC-UNESCO
Emily Twigg – SCOR
Marc Suddleson - NOAA

2023-2023 GlobalHAB Report Presented by Elisa Berdalet (Chair) On behalf of the GlobalHAB SSC



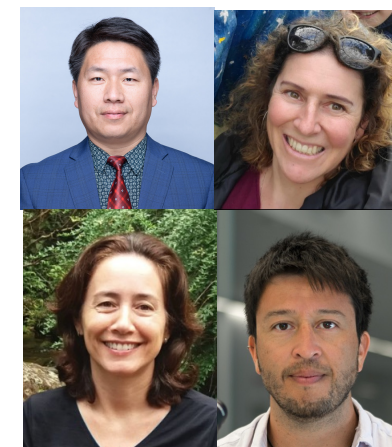
GlobalHAB SSC meeting
Glasgow 13-14 May 2022

SSC members after Sept 2023

Clarissa Anderson (Chair)
Hae Jin Jeong
Malin Olfsson
Heather Raymond
Raffaele Siano
Susie Wood
Aletta Yñiguez

New members:

Aifeng Li
Luisa Mangialajo
Jorge Mardones
Silvia Nascimento





The overall **Goal of GlobalHAB** is to improve understanding and prediction of HABs in aquatic ecosystems, and management and mitigation of their impacts



The Mission of GlobalHAB includes the following elements:

- Foster international coordination and co-operative research to address the scientific and societal challenges of HABs, including the environmental, human health and economic impacts, in a rapidly changing world.
- Serve as a liaison between the scientific community, stakeholders and policy makers, informing science-based decision-making.

The **international community is invited to participate in the GlobalHAB** programmes, through seeking **endorsement** of relevant research, monitoring, and modelling activities relating to HABs



****Contribution to UN SDG & UN Ocean Decade 2030 - Challenges & Outcomes****

Science highlights:



Publication of the "FAO, IOC and IAEA. 2023. *Joint technical guidance for the implementation of early warning systems for harmful algal blooms*. Fisheries and Aquaculture Technical Paper No. 690. Rome, FAO. <https://doi.org/10.4060/cc4794en>"

E. Garrido-Gamarro and K. Englander (eds.).

Several members of the GlobalHAB SSC participated as authors (E. Berdalet, D. Clarke, B. Karlson, M. Suddleson and M. Broadwater), and Henrik Enevoldsen was member of the Secretariat.

With the technical support of

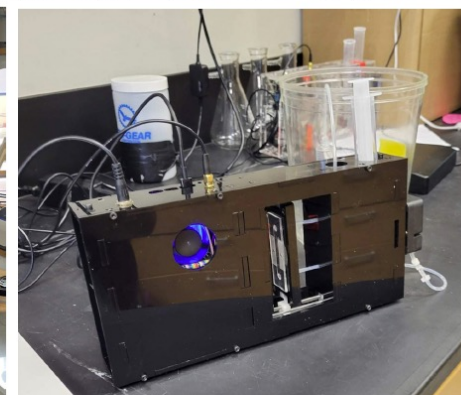
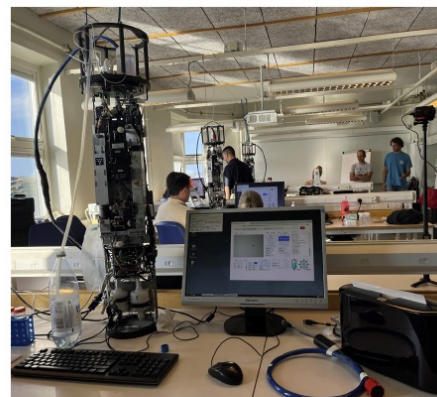


Science highlights:

**GlobalHAB Symposium on automated
in-situ observation of plankton.**
Kristineberg Marine Center, Sweden,
22-26 August 2022

Information: Presentations available at:
<http://www.globalhab.info/activities/>

A summary published in:
[Harmful Algal News 71, December 2022](#)



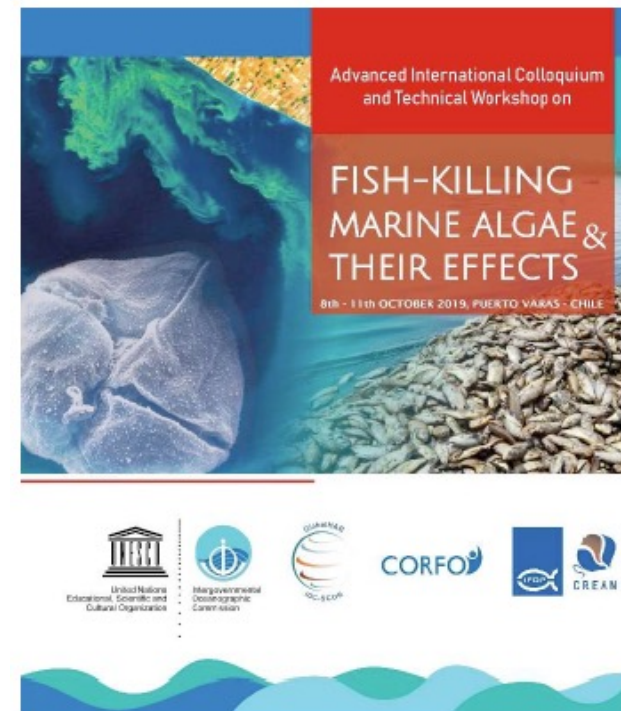


Science highlights: GlobalHAB White Paper on Fish Killing Algae

White paper on state-of-knowledge and scientific gaps to develop strategies for technological and scientific approaches to mitigate impacts of fish killing algal blooms.

Revised, submitted for layout.
Expected publication: Dec 2023.

Available at : www.globalhab.info/activities/



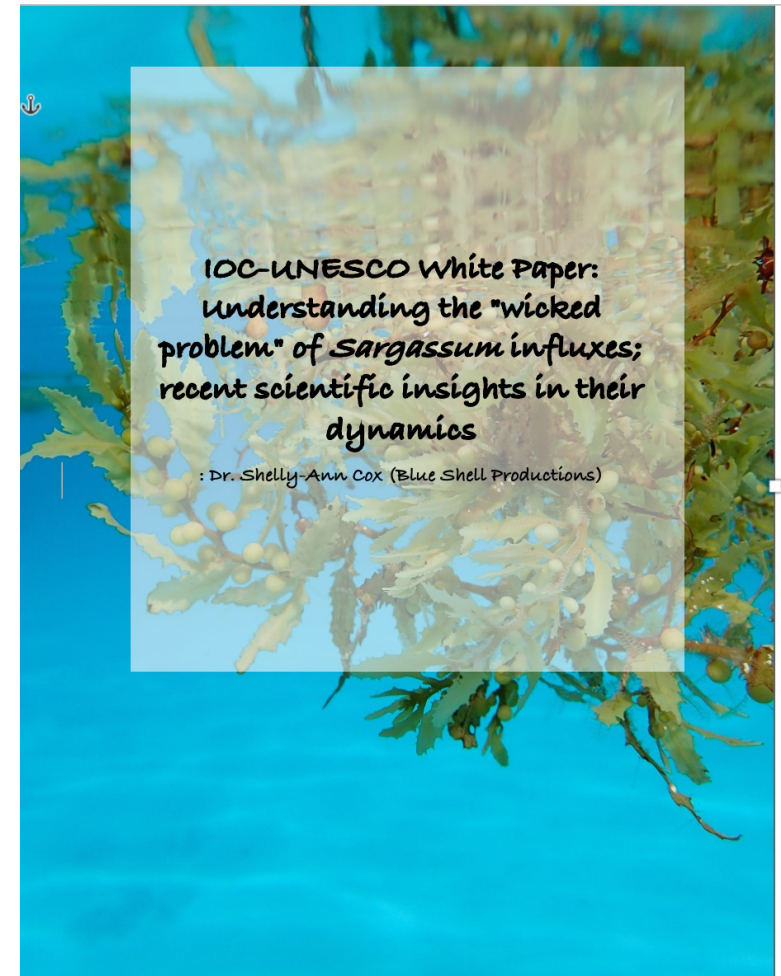
Venue: Puerto Varas, Chile
Dates: 8th – 11th October, 2019

Science highlights: GlobalHAB White Paper on *Sargassum*

White paper on current understanding and future research priorities for the understanding of the population dynamics of **pelagic *Sargassum* species**



Joint document GlobalHAB, GESAMP and EuroSea European project.

Under revision, expected publication: Dec 2023.







Participation in the International Workshop on Harmful Algal Blooms under Climate Change, National Institute of Oceanography and Fisheries (NIOF), Egypt, Hybrid meeting (<https://niof-eg.com/event/harmful-algal-blooms-under-climate-change/>).


 **International Workshop** 

Harmful algal blooms under climate change




Under the auspices of
Prof. Amr Zakaria Hamouda
President of NIOF

PROF.

Samia Kamel Mikhail
(NIOF - Egypt)

PROF.

Wagdy Labib
(NIOF - Egypt)

PROF.

Elisa Berdalet
(GlobalHAB program and ICES-WGHABD)

Organized by
National Institute of
Oceanography and Fisheries
& IOC-AFRICA UNESCO

 **03**
OCTOBER 2022  **FROM 10:30 AM**
TO 01 PM  **ONLINE**
WEBINAR

WWW.NIOF.SCI.EG

 **International Workshop on:**
Harmful algal blooms under climate change 

Harmful Algal Blooms in Africa:
present and future threats

Elisa Berdalet and Dave Clarke

SCOR and IOC/UNESCO GlobalHAB program and
ICES/IOC-Working Group of Harmful Algal Bloom Dynamics

Online Workshop – October 3rd, 2022



Next GlobalHAB Activities:

W3: **TCODE/MEQ** Topic Workshop GlobalHAB International Workshop on Solutions to Control HABs in Marine and Estuarine Waters

Co-sponsors:

[GlobalHAB](#), [NOWPAP](#), [SCOR](#)

Duration:

1.5 day

Convenors:

Vera Trainer (USA), *corresponding*
Quay Dortch (USA)
Marc Suddleson (USA)
Pengbin Wang (China)
Natsuko Nakayama (Japan)
Don Anderson (USA)
Mark Wells (USA)
Heather Raymond (USA)
Hae Jin Jeong (Korea)
H. Dail Laughinghouse (USA)

Invited Speakers:

Nobuharu Inaba

(Chemicals Evaluation and Research Institute, Japan)

Jorge Mardones

(Center for Harmful Algal Studies, Instituto de Fomento Pesquero, Chile)

Tae Gyu Park

(National Institute of Fisheries Science (NIFS), Korea)

Kaytee Pokrzywinski

(HAB Forecasting Branch, NOAA, USA)

Heather Raymond

(College of Food Agricultural and Environmental Sciences, Ohio State University, USA)

Zhiming Yu

(Key Laboratory of Marine Ecology & Environmental Sciences, Institute of Oceanology, Chinese Academy of Sciences (IOCAS), China)



- Focus on control efforts on the organisms themselves, either killing them or removing cells and/or toxins from the water, not in prevention or mitigation.
- It will engage participants with expertise in research, development, and implementation of promising estuarine and marine HAB control approaches.
- Participants will discuss technical, environmental compliance and public perception challenges and explore solutions to these common barriers.
- Expected outcome: summary of the worldwide approaches in HAB control as a scientific report or as a collection of papers in a special issue of the journal *Harmful Algae*

Ongoing GlobalHAB Activity: quantitative PCR (qPCR) Workshop



- The workshop has been prepared online during 2 years.
- An in person meeting, 22 participants, will be held on 3-5 November 2023 prior to the ICHA, in Hiroshima.
- The results will be presented at the ICHA:

Session 18: Emerging issues. O-107. Anette Engesmo.
How to integrate the qPCR method into HABs monitoring?
First results of an international workshop promoted by
GlobalHAB



Collaboration with the Harmful Algal Bloom Solutions (HAB-S) Programme, proposed for the UN Decade of Ocean Science for Sustainable Development by the IOC-FAO IPHAB.



The Harmful Algal Bloom Solutions Programme HAB-S

A Proposed Action for the UN Decade of Ocean Science for Sustainable Development
Led by the FAO-IOC Intergovernmental Panel on Harmful Algal Blooms (IPHAB)



Food and Agriculture
Organization of the
United Nations



unesco
Intergovernmental
Oceanographic
Commission

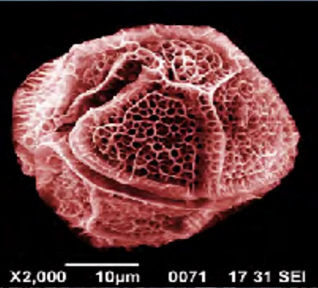


NATIONAL CENTERS FOR
COASTAL OCEAN SCIENCE

- HAB-S was presented at the Thirty-second Session of the Assembly of the Intergovernmental Oceanographic Commission (UNESCO) in Paris, June 22, 2023.
- The key elements of HAB-S were highlighted in the session "Shaping Our Future Ocean: The IOC/UNESCO contribution to the Ocean Decade.
- GlobalHAB will be a HAB-S partner.



GlobalHAB



*Together, we are
building GlobalHAB.*

