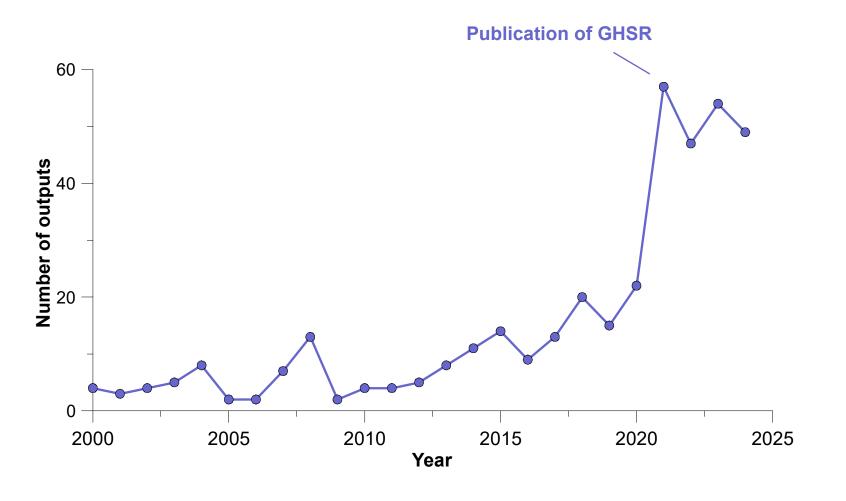


**Progress since the last meeting** 

Since the last session:

- Changing work priorities resulted in chair stepping down
- Attempts to find a successor were unsuccessful



### Outputs include;

- peer reviewed papers
- Reports
- conference presentations& proceedings





#### List of non-toxigenic marine microalgal species associated with animal kills or health impairment

Version: 1.1, November 2024

- View the list
- · Download the list (Excel format)

This list includes species **not known to produce toxins** that have been associated **with mortality or damage to marine organisms**. The list is meant to complement the IOC list of harmful species that produce toxic substances, with no overlap between the two lists. Therefore known **toxigenic species are not included in this list**, even in case the damage they caused was not due to their known toxins (e.g., they caused anoxia).

Non-toxigenic species causing harm other than to marine organisms' health, e.g., to recreational use of the sea, tourism, or other economic activities related to the sea (e.g. seawead cultivation) are not included and will be part of another list (in preparation).

The list only includes species responsible for **traceable cases**, i.e., harmful events reported in the literature (based on a non-exhaustive search) or in the IOC-ICES-PICES Harmful Event Database (HAEDAT).

The species reported to produce fish kills were the most abundant but not the only species found at the time of the event. Therefore, there is no certainty that those species were actually responsible for the animal kill. Exceptions are the repeated cases of mortalities associated with physical damage caused by spines, barbs, mucus or other specific mechanisms.





#### List of non-toxigenic marine microalgal species associated with animal kills or health impairment

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Home > Journal of Oceanology and Limnology > Article

The "harmful algae and algal toxins in coastal waters of China: investigation and database" project

teview | Published: 04 November 2022 olume 40, pages 2081–2093, (2022) Cite this article



#### Article

#### Coastal phytoplankton blooms expand and intensify in the 21st century

https://doi.org/10.1038/s41586-023-05760-v

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Check for updates

Yanhui Dai<sup>1,9</sup>, Shangbo Yang<sup>1,9</sup>, Dan Zhao<sup>1</sup>, Chuanmin Hu<sup>2</sup>, Wang Xu<sup>3</sup>, Donald M. Anderson<sup>4</sup>, Yun Li<sup>5</sup>, Xiao-Peng Song<sup>6</sup>, Daniel G. Boyce<sup>7</sup>, Luke Gibson<sup>1</sup>, Chunmiao Zheng<sup>1,8</sup> & Lian Feng<sup>1⊠</sup>

Phytoplankton blooms in coastal oceans can be beneficial to coastal fisheries

production and ecosystem function, but can also cause maje problems<sup>1,2</sup>—yet detailed characterizations of bloom incide not available worldwide. Here we map daily marine coastal 2003 and 2020 using global satellite observations at 1-km s that algal blooms occurred in 126 out of the 153 coastal cour the spatial extent (+13.2%) and frequency (+59.2%) of bloom (P < 0.05) over the study period, whereas blooms weakened subtropical areas of the Northern Hemisphere. We docume between the bloom trends and ocean circulation, and ident effects of recent increases in sea surface temperature. Our of mapped coastal phytoplankton blooms provides the basis of bloom risks and benefits, and for the formulation or eval or policy actions.

#### **iScience**



#### Revisiting harmful algal blooms in India through a global lens: An integrated framework for enhanced research and monitoring

Aditya R. Nayak, 1,2,6,\* Srinivas Kolluru, 3,6 Aloke Kumar, 4,\* and Punyasloke Bhadury<sup>5</sup>

<sup>1</sup>Department of Ocean and Mechanical Engineering, Florida Atlantic University, Boca Raton, FL 33431, USA

<sup>2</sup>Harbor Branch Oceanographic Institute, Florida Atlantic University, Fort Pierce, FL 34946, USA

<sup>3</sup>Skidaway Institute of Oceanography, University of Georgia, Savannah, GA 31411, USA

<sup>4</sup>Department of Mechanical Engineering, Indian Institute of Science, Bengaluru, Karnataka 560012, India

<sup>5</sup>Department of Biological Sciences, Indian Institute of Science Education and Research, Kolkata, West Bengal 741246, India

<sup>6</sup>These authors contributed equally

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https://doi.org/10.1016/j.isci.2025.111916

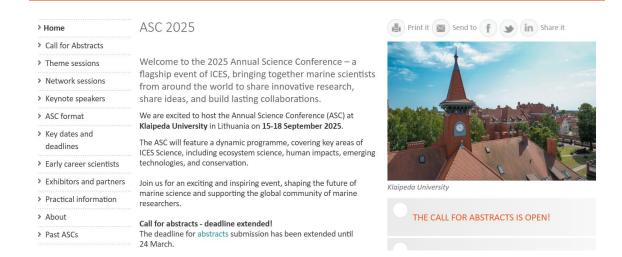
Harmful algal bloom (HAB) events substantially impact human and aquatic ecosystem health and the global blue economy; hence, a concerted effort is required to advance our understanding of HAB ecology to better inform monitoring and mitigation measures. Here, we highlight the current state of HAB research and monitoring in India, where  $\sim$ 17% of the human population resides in the vicinity of its long coastline and is

# 20<sup>th</sup> International Conference on Harmful Algae Hiroshima, Japan Nov 2023

#### W04 **SETOUCHI 3** IOC harmful algal information system (HAIS) workshop: The power of big data for HAB seafood risk assessment and predicting HAB futures Thursday 9 November lunchtime (12:45 - 13:45) Chairs: Gustaaf Hallegraeff (Australia), Dave Clarke (Ireland) and Eileen Bresnan (United Kingdom) IPHAB Task Team for HAIS and GHSR DETAILED PROGRAM: This workshop will: Introduce the HAEDAT (IOC-ICES-PICES Harmful Algal Event Database) and OBIS (HAB species diversity and distribution) databases, Guidance on consistent collation of data for entry and interpretation, Review the status of available global data, and their applications in the 1st IOC Global HAB Status report, Open discussion. We specifically encourage input from Japanese and Chinese colleagues.

# ICES Annual Science Conference Lithuania, Sept 2025

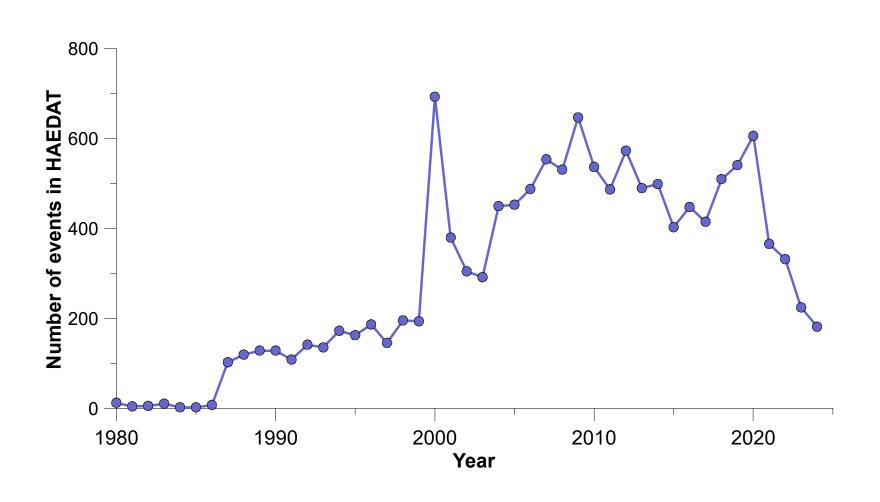
#### **ICES ANNUAL SCIENCE CONFERENCE 2025**



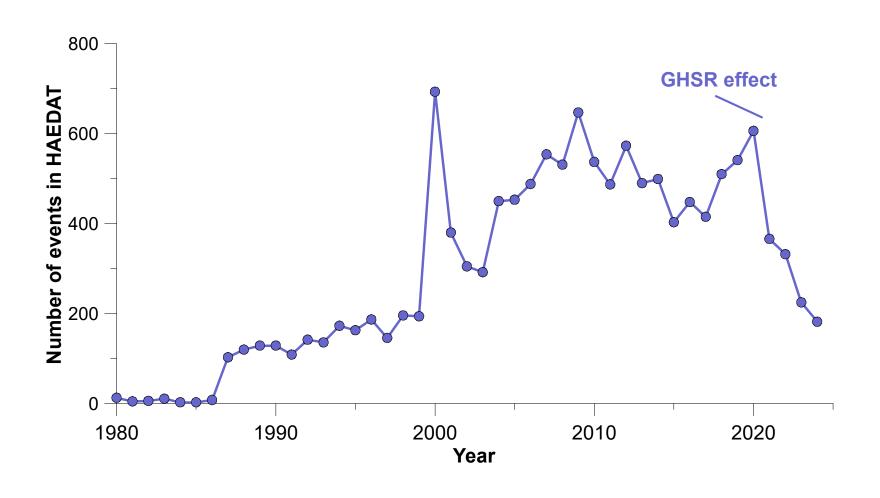
## 2<sup>nd</sup> UN Ocean Decade Regional Conference & 11<sup>th</sup> WESTPAC International Marine Science Conference, April 2024

Session C5: Mitigation and management of harmful algal blooms		
C5-01	The IOC Harmful Algal Information System	Eileen Bresnan, Marine Directorate of the Scottish Government, United Kingdom

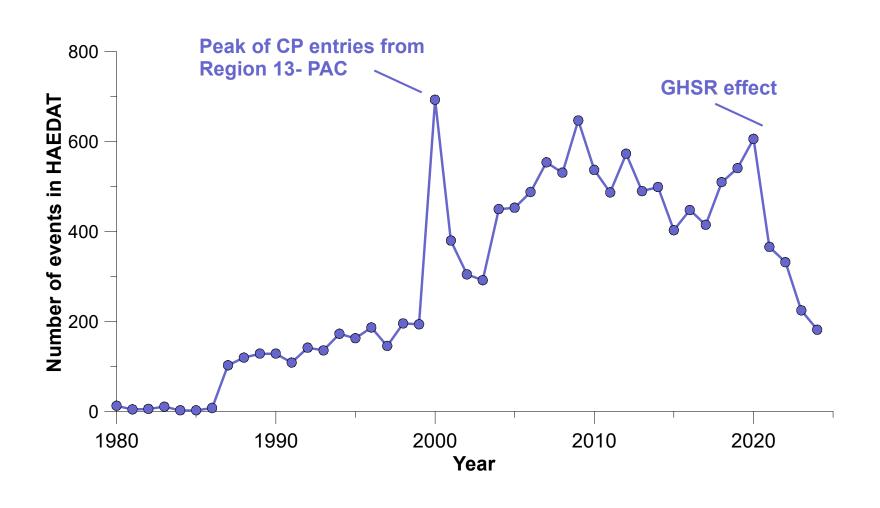
### **Status of HAEDAT**



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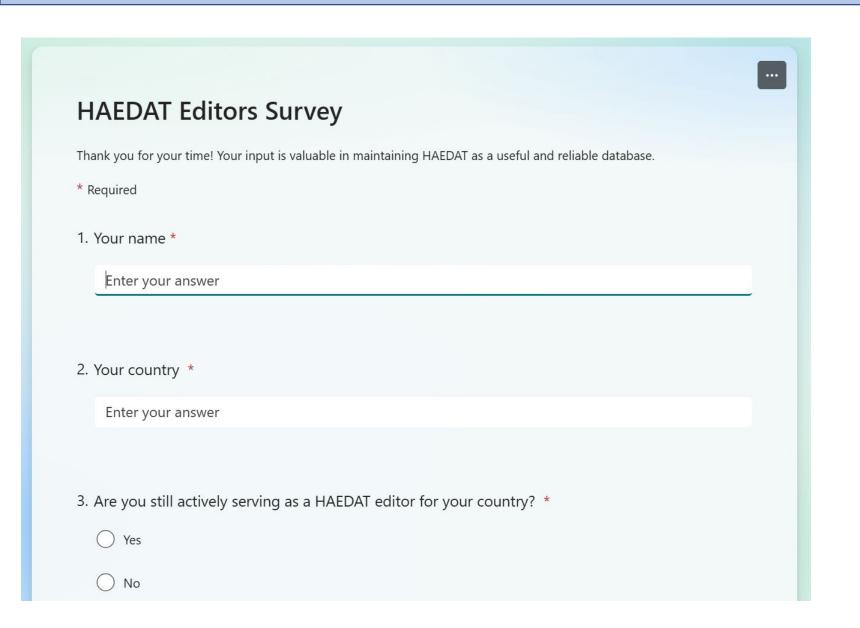


### Draft document detailing improvements to HAEDAT to get an estimate of costs to fix

- Accessing HAEDAT
- Data QC
- Data extraction
- Recording no monitoring/no events/no data entered
- Entering Data

#### Improving event definitions

- High Biomass events
- Cyanobacterial events
- CP events

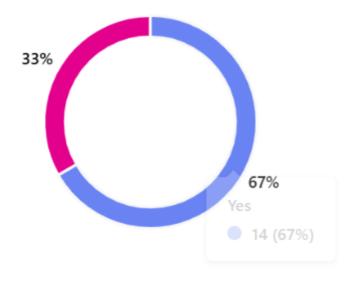


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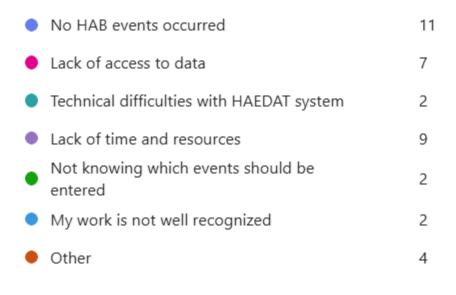
5. Have you entered any new HAB events in the last two years?

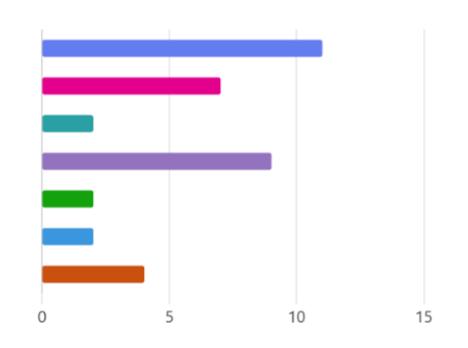


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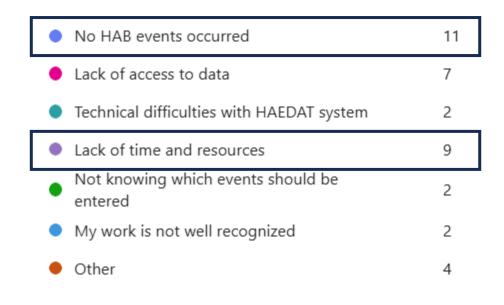


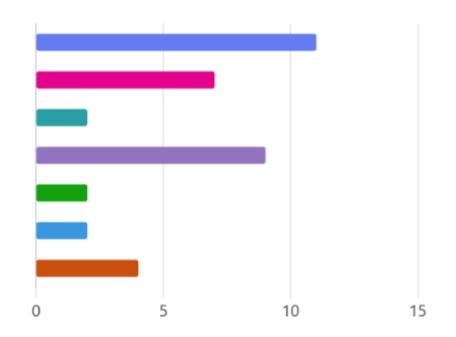
6. What factor can prevent you from entering the data? (Check all that apply)





6. What factor can prevent you from entering the data? (Check all that apply)





#### **Comments from survey**

- Difficulty accessing data:
  - -Not all country regions agree to supply data to HAEDAT
  - -Need to ask permission from local government or researchers
  - -Database input is aligned with National Reporting cycles so could be a delay

- Some mention confusion around what to enter
- Technical issues
- Lack of recognition for HAEDAT

#### Focus for the next session

- TT needs a new leader and a global team to ensure HAIS is kept up to date and issues dealt with appropriately
- HAEDAT needs financial support to modernise and improve data entry, extraction and quality control
- Initial results from the survey suggests need for more recognition for HAEDAT as well as refresher training
- Improve publicity for HAEDAT to make data access easier
- Requirement for metadata

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- Requirement for metadata
- Harmonisation of HAIS with initiatives from TT Taxonomy and TT Biotoxins
- Identify focus and complimentary datasets for next GHSR
- UN Decade Action Submission (Eutrophication: Nutrient Pollution- Global Action Network)





