



KEYWORDS

Phytoplankton

Oceanography

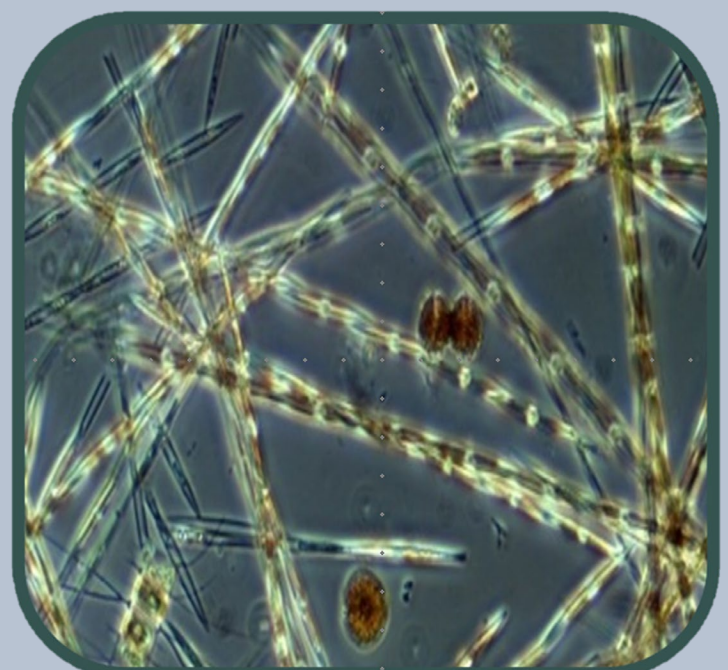
Ecosystem Status Report

Climate drivers

Economic impacts

What are Harmful Algae?

Harmful algae are a small subset of phytoplankton that can produce toxins. All phytoplankton are single-celled organisms and form the foundation of the ocean's food chain. Toxins from harmful algae can accumulate in fish and shellfish, posing risks to both humans and marine animals when consumed.



S-HAB WEBPAGE



<https://meetings.pices.int/members/sections/S-HAB>

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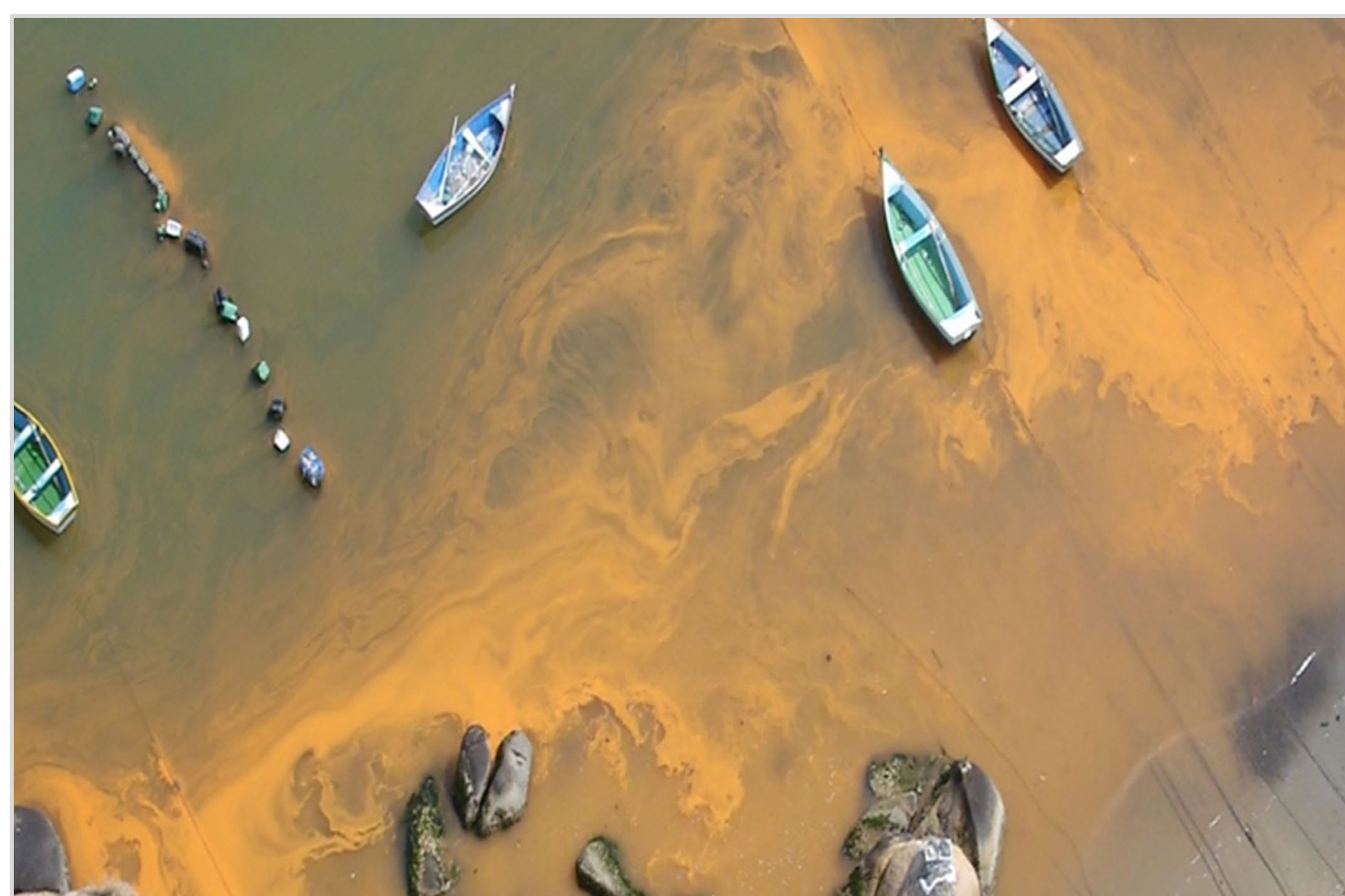
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SECTION S-HAB

Active since October 2021
(Next 3-year review in 2025)

Ecology of Harmful Algal Blooms in the North Pacific

To lead international collaborations to understand the causes, impacts and solutions for harmful algal blooms.



Noctiluca bloom

Who We Are

The Section on Harmful Algal Blooms (S-HAB) promotes collaboration on the study of harmful algal blooms (HABs), commonly known as “red tides”, with a focus on the North Pacific region. We share knowledge of the difference in HAB occurrence in the eastern and western Pacific to better understand the conditions that promote these harmful events.

What We Do

1. Guide ongoing deliverables to address the goals of IOC’s UN Decade of Ocean Science for Sustainable Development (UNDOS) and the FUTURE science program of PICES.
2. Contribute to the development of the PICES North Pacific Ecosystem Status Report. Produce summary reports on east-west and north-south occurrence (similarities and differences) of selected HAB species and new species of concern.
3. Developing guidelines for quantifying changes in the character, magnitude and frequency of HAB events in PICES Nations related to expected and measured trends of climate change.
4. Contributing to the development of global HAB research activities including the Global HAB status report (ICES, PICES, IOC) and the UN Decade of Ocean Science for Sustainable Development.
5. Continuing PICES member country data entry into the joint ICES-PICES Harmful Algal Event database (HAE-DAT) to allow global comparison of changes in harmful algal blooms.

What We Know

Harmful algal blooms occur on every coastline of the world. They cause millions of dollars of loss to coastal communities by closing beaches to shellfish harvest, killing fish and shellfish in aquaculture operations, and impairing offshore fishing. Coastal tourism is affected. When there is a HAB event, often waters can turn brown or red and decaying phytoplankton can cause a stench to be released into the air. The positive health benefits of being by the sea is impaired when there is a HAB in the area.

In severe cases, humans can be poisoned by HABs, causing nausea, vomiting, diarrhea and other health effects. Therefore, early warning of HABs, including frequent monitoring of phytoplankton and toxins, is critical.

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North Pacific Marine Science Organization (PICES)

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