HARMFUL ALGAE

Xth International Conference
St. Pete Beach, Florida, USA
October 21–25, 2002

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Florida Fish and Wildlife Conservation Commission

Florida Institute of Oceanography

Intergovernmental Oceanographic Commission of UNESCO

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Proceedings of the Xth International Conference on Harmful Algae
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X*th* INTERNATIONAL CONFERENCE ON HARMFUL ALGAE

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PREFACE

The first International Conference on Harmful Algae was held in 1974 in Boston Massachusetts, USA. Since then, eight more conferences have been held: Miami, Florida, USA (1978); New Brunswick, Canada (1985); Lund, Sweden (1989); Newport, Rhode Island, USA (1991); Nantes, France (1993); Sendai, Japan (1995); Vigo, Spain (1997); and Hobart, Tasmania (2000).

The Xth International Conference on Harmful Algae (XHAB2002) was held in St. Pete Beach, Florida, October 21 to 25, 2002. The Local Organizing Committee planned the meeting and obtained financial support for conference activities, including travel award funds. XHAB2002 was able to support 24 USA and international students with amounts from 500 to 1500 USD per student and an additional 20 international participants with amounts from 1000 to 3200 USD per person. Travel awards helped increase the geographic diversity of presentations. The 629 printed abstracts represented 48 countries. Prior to the Vigo, Spain, conference in 1997, the highest number of presentations, including oral and poster, was less then 250. However, since 1997, the number of presentations has steadily increased.

Understandably, almost half of the presentations at XHAB2002 represented the USA because the conference was held in Florida. Florida is the most southern state in the USA and is unique in its diversity of aquatic and terrestrial wildlife and plants. Florida is home to alligators, crocodiles, eagles, osprey, panthers, manatees, marine turtles, gopher tortoises, rare orchids, venus fly traps, a living coral reef and other organisms such as harmful algae. Of the known harmful microalgae, Florida has more than 45 marine species and 15 freshwater species. It also has macroalgal blooms that can affect marine communities.

The west coast of Florida was an appropriate venue for a HAB conference because of its extensive history of red tides that occur almost annually and can be somewhere off the Florida west coast continously for several months to two years. Here in Florida, the effects of microalgal blooms include seawater discoloration, offshore and inshore fish kills, bird and marine mammal mortalities, respiratory irritation in humans, and economic losses in the millions to local coastal communities. As with many HABs, microalgal toxins can be associated with shellfish such as oysters and clams, and these sources of toxicity can cause public health concerns. The state of Florida has a multi-agency cooperative program to monitor and manage shellfish-growing areas and other potentially toxic seafood. At XHAB2002, attendees learned about Florida red tides and HABs around the world. This Proceedings represents a cross section of the presentations and demonstrates the diversity of the topics discussed. Presentations on dinoflagellates dominated XHAB2002, but cyanobacteria, diatoms, flagellates and chrysophytes were also well represented.

Members of the International Committee served as session chairs during the meeting and both National and International Committee members served as reviewers for the Proceedings manuscripts. The Organizing Committee and the editors of this Proceedings thank all of our colleagues for their presentations which made the meeting a success. A special thanks goes to John Cooksey, our conference manager, and his team for ensuring that the meeting ran smoothly. The Organizing Committee also acknowledges the contributions of three other people. We thank Dr. Bob Steele of the Poynter Institute, for moderating the *Pfiesteria* Panel Discussion; Dr. David Millie for being such a great Program Manager and organizing all the oral and poster presentations; and Dr. Harry Grier for taking exceptional photographs of the conference and its attendees.

Of the 629 abstracts representing oral and poster presentation, 180 are presented as condensed papers in this Proceedings. Of the 10 roundtable and special sessions, several are represented as summaries or as individual papers within the session.

In addition to this Proceedings, the International Society for the Study of Harmful Algae (ISSHA) has made a commitment to help develop a world wide map of harmful algae events that will be available on websites and possibly as a CD. Also, beginning with the XII HAB conference in 2006 in Copenhagen, Denmark, which will be hosted by Øjvind Moestrup of the University of Copenhagen and a Scandinavian consortium, ISSHA (along with the local organizing committee) will help in the production of the proceedings of future international HAB meetings.

—Karen A. Steidinger
Convener

XHAB2002 ATTENDEES

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[***Editors' Note:*** *For economy in the printed Proceedings, all color figures were presented in grayscale in the text, and their color versions were grouped following the Awards section. In this digital Proceedings, the color figures appear in their respective articles throughout the text, and the Color Figures section has been eliminated.*]