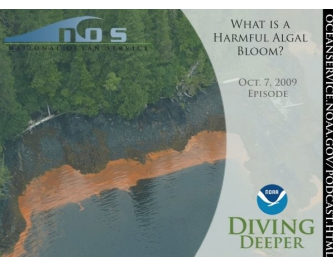


# Plankton News

The Newsletter of the Phytoplankton Monitoring Network



## PMN Featured in NOS Podcast

Listen to the October 7th edition of [Diving Deeper: Harmful Algal Blooms](#) to learn about what harmful algal blooms are, where they can occur, and what you can do to help.

## News

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## Items

**A Phytoplankton App for the iPod Touch and iPhone**

**Description**

Phyto helps you learn to identify phytoplankton and their proper pronunciation. It includes the most common salt water phytoplankton. The program consists of two main modes. The first mode is a listing of the different species and includes different images taken with a light microscope and the ability to hear the correct pronunciation. The second mode is a flash card game to help you improve your phytoplankton identification skills.

This application was developed by a volunteer member of the [Phytoplankton Monitoring Network](#) which is sponsored by the Center for Coastal Environmental Health and Biomolecular Research division of the U.S. National Oceanic and Atmospheric Administration (NOAA).

Demo on YouTube [Apple App Store](#)

[YouTube](#) [Available on the App Store](#)

## Phytoplankton on iPhone

New PMN volunteer Shawn Gano from Texas created the [Phyto](#) iPhone application highlighting common Gulf of Mexico phytoplankton. The application contains PMN pictures and pronunciations along with a flash card portion which aids in enhancing identification skills.

**Note:** This iPhone application was created using information drawn from the PMN web site. Mention of products or manufacturers does not constitute an endorsement by NOAA or the Department of Commerce, as NOAA does not exercise any editorial control over the information provided by such products or manufacturers.



## Species Spotlight: *Pyrodinium bahamense*

*Pyrodinium bahamense* is a species of dinoflagellate found in subtropical to tropical waters. It is an interesting species, because it is one of nine dinoflagellates known to be bioluminescent. In fact it derives its name from that very characteristic (Pyro = Fire). This species is also of interest as it has recently been shown to produce saxitoxin, which can cause Paralytic Shellfish Poisoning. This species can be identified by its apical horn, comma shaped apical pore cover, pronounced cingulum groove, and antapical spine. The cell is roughly circular with the epitheca and hypotheca being about the same size. These cells are typically between 42 and 44  $\mu\text{m}$  in diameter. The cingulum groove is displaced by approximately its width, and the left antapical spine is usually twice the size of the spine on the right. Many of these features are distinct enough that they are discernable with a light microscope. There are two distinct varieties of this species; the Indo-Pacific variety, (var. *compressum*) which is slightly more compressed than the Atlantic variety

(var. *bahamense*). The Indo-Pacific variety is also known to form chains, while the Atlantic variety is usually found as a single cell. The Atlantic variety is typically isolated to around Florida and the Caribbean Sea, while the Indo-Pacific variety is found from Mexico to the Philippines. This species is known to be the source of saxitoxin causing puffer fish to become toxic in the Northern Indian River Lagoon, Florida.

### References:

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Morquecho, L., 2008. Morphology of *Pyrodinium bahamense* Plate (Dinoflagellata) near Isla San Jose', Gulf of California, Mexico. *Harmful Algae* 7 664–670.

Tomas, C.R. (ed.), 1997. *Identifying Marine Phytoplankton*. Academic Press, San Diego.

## From the Desk of Dr. Morton

It has been a busy summer around the PMN. We are starting our 9<sup>th</sup> year of sampling. Thanks again for all your help to make this program successful. As you may have already noticed, we have recently redesigned our web site. If you see anything that can be improved upon, please feel free to contact us. One of the major overhauls of the site is the image gallery which will continue to be updated. The new image gallery will include light and electron micrographs of each species along with movies of each species which moves. Also included in the site is the pronunciation of each species. The voice you hear is our own web site coordinator, Kimberly.

We are also changing the format of the "Plankton News". We will be having a shorter version of the newsletter being sent out every other month to keep everyone updated on the PMN and other Harmful Algal News from the United States and around the world.

Starting next month, I will be teaching my HAB taxonomy class. This once-a-month class will teach basic phytoplankton taxonomy along with the taxonomy of each toxin producing group. The first class will be October. If you would like to participate in the class via WebEx, call Jeff Paternoster or Matt Brim.

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