

# Pyrodinium bahamense

## FACT SHEET



### BACKGROUND

*Pyrodinium bahamense* is a single-celled, naturally occurring organism belonging to a group of algae called dinoflagellates. Large concentrations of this organism, called blooms, can discolor the water red to brown. *Pyrodinium bahamense* occurs in marine and estuarine waters of Florida and typically blooms during the summer in estuaries including the Indian River Lagoon, Tampa Bay, and Charlotte Harbor. Typically at the end of blooms, as part of its life cycle, *P. bahamense* forms seed-like cysts, which fall to the bottom where they overwinter in the sediment until they are ready to germinate. *Pyrodinium bahamense* produces a suite of neurotoxins called saxitoxins that can accumulate in shellfish and puffer fish, posing a human health risk. Blooms of *P. bahamense* can occasionally lead to fish kills by depleting the water of dissolved oxygen.

### SEAFOOD SAFETY

Shellfish, such as clams, oysters, mussels, and scallops, as well as pufferfish, can accumulate saxitoxins. Saxitoxins have no taste, smell, or color, and cannot be destroyed by cooking. If contaminated shellfish or pufferfish are eaten, people can become ill with Paralytic Shellfish Poisoning (PSP) or Saxitoxin Puffer fish Poisoning (SPFP). In Florida, pufferfish harvesting is banned in the Indian River Lagoon because of SPFP cases associated with the consumption of puffer fish (including the fillet and tail portions) harvested from this system. Water samples from recreational shellfish harvesting areas are routinely collected to screen for *P. bahamense*, and if *P. bahamense* is found, shellfish samples are also screened. In certain locations, like the Indian River Lagoon, where blooms commonly pose a human health risk, shellfish samples are routinely screened regardless of water column concentrations.

### HEALTH

Symptoms of PSP and SPFP include numbness and tingling of the mouth and/or lips, dizziness, weakness, nausea, vomiting, respiratory distress, drowsiness, loss of body movement control, headache, tingling sensations in the face and/or extremities, muscle weakness, and incoherent speech. Onset of symptoms is usually rapid, as soon as 15 minutes after ingestion, but can occur up to 10 hours after ingestion. The duration of illness, which varies from person to person, may range from 12 hours to 45 days in extreme cases.

### STAY CONNECTED

For **red tide status reports** and general information on red tide and other harmful algal blooms (HABs) in marine and estuarine waters of Florida, visit the FWC [Red Tide Status page](#). For the current status of **shellfish harvesting areas** and information on closures, visit the Florida Department of Agriculture and Consumer Services [website](#). For **public health related information**, visit the Florida Department of Health [website](#), and to report an illness, call Poison Control immediately at (800) 222-1222. To report **fish kills**, visit the FWC [Fish Kill Hotline reporting page](#) or call the Florida Fish and Wildlife Conservation Commission's Fish Kill Hotline at (800) 636-0511. To report concerns related to **wildlife**, visit the [FWC Incident Reporting Page](#) or call the Wildlife Alert Hotline at (888) 404-3922. For information on conditions at Florida beaches, including respiratory irritation associated with red tides, visit Mote Marine Laboratory's [Beach Conditions Reporting System](#) and for respiratory forecasts that use FWC and partner data, please visit the [National Oceanic and Atmospheric Administration's National Centers for Coastal Ocean Science](#). For information on the Florida Fish and Wildlife Conservation Commission's Community Scientists Monitoring for Red Tide (CSMRT) Program or to **volunteer**, visit the FWRI [Community Scientists Monitoring for Red Tide \(CSMRT\)](#) page.

