Gambierdiscus toxicus is Florida's second most problematic HAB species. It occurs worldwide in tropical and subtropical waters—including in and around coral reefs. In Florida, G. toxicus is found from Palm Beach to the Dry Tortugas and Florida Bay.

Gambierdiscus toxicus is suspected in fish kills and disease events and produces a toxin called ciguatoxin, which causes ciguatera fish poisoning (CFP). The symptoms of CFP appear within 3 to 24 hours and can last several days or recur for years. One telltale sign of CFP is temperature reversal—a piece of ice will feel hot to the touch, and a hot cup of coffee will feel cold.

More than 400 species of fish can cause CFP. Some of these are grouper, mahi mahi, snapper, and amberjack.