

Red Tide information

Red tide is a naturally occurring phenomenon that has been documented along Florida's coast since the 1500's. Red tide normally occurs in late summer and early fall months, although it may occur every month of the year. Recently, blooms have been documented in Okaloosa and Walton counties along the Gulf of Mexico and parts of Choctawhatchee Bay.

A tiny plant-like, single-celled organism (they require light and CO₂ to produce their own food using chlorophyll), called *Gymnodinium breve* (*G. breve*), is the culprit of most red tide blooms in Florida. Red tide occurs when these tiny organisms accumulate in higher than normal concentrations, referred to as a "bloom." Red tide originates offshore and is carried by wind, tides and currents. Sunlight, salinity, temperature and the amount and types of nutrients available in the water all influence the growth of *G. breve*.

These microalgae contain a brevetoxin that affects the nervous system of fish (making it difficult for fish to breathe), and when the toxins are released into the air, may affect the respiratory system in humans. The toxin accumulates in filter-feeding shellfish, and if consumed by humans may cause neurotoxic shellfish poisoning (NSP). Cooking does not kill the red tide toxin.

Shellfish beds are monitored by the FDEP, and are closed during red tide events. After about 2 to 4 weeks shellfish will purge the toxin from their systems, and after tests come back negative, shellfish harvesting bans are lifted. The toxin is not absorbed into the edible tissue of shrimp, crabs, lobster or fish, and these animals are safe to eat during a red tide event, although it is never wise to eat sick, lethargic or dead fish. For most people, swimming is safe during red tide events, although you may experience skin irritation, and burning eyes. Use common sense, and if you experience these symptoms, get out of the water and rinse off well.

For more information about red tide and to check the status of red tide in our area, go to: www.fmri.usf.edu/redtide/status/nw.htm