

THE FACTS

What's Safe? What's Not?

Shrimp, crab, scallops and lobsters in Red Tide waters are **SAFE** to harvest and eat, since these shellfish do not accumulate Red Tide toxin in the meat, or hard muscle tissue which we normally consume. It is **not** a good idea to eat the liver, organs, or other soft tissues of shellfish.

The muscle or "meat" of freshly caught finfish in Red Tide waters is **SAFE** to eat, provided the fish behave normally and actively chase bait. There is no evidence of harmful effects in humans from eating fish that have been collected by Red Tide. It is **not** a good idea to eat the liver, organs, or other soft tissues of finfish.

Oysters, clams, mussels and other bivalve mollusks in Red Tide waters are **UNSAFE** to harvest and eat until the South Carolina Department of Health and Environmental Control determines that the waters are clear of Red Tide and the tissues of these shellfish are free of toxin. Cooking does not destroy Red Tide toxin. Symptoms of Red Tide poisoning include nausea, diarrhea, dilated pupils, tingling of the fingers and toes, and sometimes a reversal of sensations, where hot seems cold and cold feels hot. Consult a physician at once if these symptoms occur. Very few cases of poisoning in humans, and no deaths, have been attributed to Red Tide poisoning.

Whelks and moon snails in Red Tide waters are **UNSAFE** to harvest and eat since they may accumulate toxins in their tissues when feeding on contaminated shellfish.

Waves, wind and boat propellers in high concentrations of Red Tide can disperse toxin particles into the air and may cause coughing, runny nose, watery eyes and tingling of the lips and tongue in some persons. If symptoms do occur, they are only temporary and will disappear soon after you leave the area.

WHAT IS IT? Red Tide is the result of massive multiplication (or "bloom") of tiny, single-celled algae called *Ptychodiscus brevis* (pronounced "Ti-ko-dis'-kus bre'-vis"), usually found in warm saltwater, but which can exist at lower temperatures. It is a natural phenomenon, apparently unrelated to manmade pollution. In high concentrations, *P. brevis* may create a brown-red sheen on the surface of the water; in other instances, it may look yellow-green, or may not be visible at all. Some Red Tides have covered up to several hundred square miles of water.

WHERE DOES IT COME FROM? Scientists believe that *P. brevis* algae may enter a dormant stage at some point in their life cycle, forming cysts which settle 10 to 40 miles off the west coast of Florida in ocean bottom sediments, creating a "seed bed" effect. They think that strong flows of warm water from the Gulf Stream have carried the algae up the East Coast and inshore to the Carolinas.

HOW DOES IT AFFECT MARINE LIFE? *P. brevis* produces a poison, or toxin. Filter-feeding shellfish - oysters, clams, mussels and other bivalve mollusks - that consume *P. brevis* concentrate the toxin in various organs and "soft" tissues. Shellfish are not killed by the toxin, but in finfish, *P. brevis* can be deadly. Red Tide can paralyze fish gills, rendering them unable to extract oxygen from water.

For More Information . . .

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