

# **Crabs and Mussels for the Holidays: A Delicious Traditional Feast that may leave you feeling not so Merry**

**Article by Ashley Russell, Water Protection Specialist**

My first Christmas I spent with my Dad, I distinctly recall my step-mom's brother coming in on Christmas Eve from a fishing excursion with 10 delectable dungeness crabs and 2 savory rock fishes. It was such a memorable Christmas as I had never seen that much crab in my 10 years of life. Crabs and mussels have been a staple food for our ancestors for thousands of years, especially during the winter months when food rations began to dwindle. Today, shellfish is consumed more often during special occasions, like the holidays, especially since commercial harvesting for dungeness crab usually opens December 1<sup>st</sup>. For the last 2 years, however, commercial as well as recreational crab harvesting has been closed or postponed up and down the coast due to Cyanobacteria blooms.

Cyanobacteria are phytoplankton, or microalgae, that provide food for a myriad of oceanic animals, including clams, snails, jellyfish, shrimp, and whales. Like most plants, when nitrogen, phosphorus, sulfur, and environmental factors such as temperature are just right, plants abound. When too many nutrients are available, cyanobacteria can grow out of control and form harmful algal blooms (HABs). These blooms can produce toxins that are harmful to shellfish and mammals that depend on them for food and also the animals, to a greater extent, that feed upon them, including humans. HABs that are common in our area are known as pseudo-nitzschia and can release a neurotoxin called domoic acid.

Domoic acid accumulates in shellfish and cannot be neutralized by freezing or cooking. Domoic Acid, upon ingestion or within 24 hours, can cause abdominal cramps, nausea, and vomiting, and diarrhea. In severe cases, neurological symptoms can occur within 48 hours after consumption, which include headache, dizziness, confusion, motor weakness, seizures, short-term memory loss, cardiac arrhythmia, and coma.

Luckily, commercial shellfish is always tested for domoic acid prior to being sold in the marketplace, so if you are craving crab and mussels, etc this holiday season, be assured that the shellfish at the supermarket is safe to eat. However, if you plan on traditionally harvesting your shellfish for that holiday party or dinner, be sure to visit the Oregon Department of Agriculture's Recreational Shellfish Biotxin Closure website:

<http://www.oregon.gov/ODA/programs/FoodSafety/Shellfish/Pages/ShellfishClosures.aspx> or call the Shellfish Safety Hotline: 1-800-448-2474 before you go harvesting. Happy Digging!