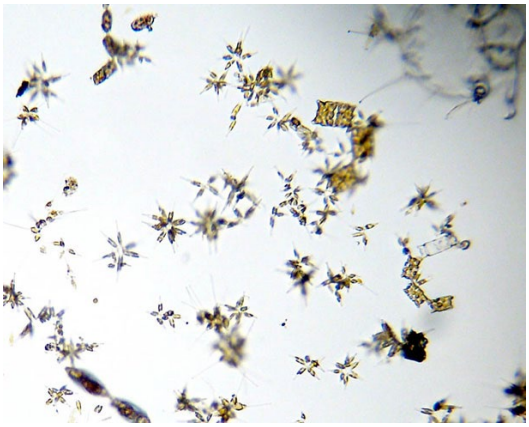
What is that brown colored foam on the river or on the beach? Why is the surf so … brown?

Every year, visitors and locals alike have been puzzled by the appearance of the surf or the brown foam on the Siuslaw River. Some people guessed an oil spill, others guessed raw sewage or forms of water pollution.

The truth is quite opposite: The Florence area is experiencing a major diatom bloom. Diatom blooms are very healthy and give filter feeders, such as razor clams, a banquet to feast upon. Diatoms are single-celled plants (phytoplankton) that are found in both fresh and salt water. They are one of the most important food sources in the ocean.



During the winter, spring, and early summer, diatoms rapidly multiply in the surf zone. Diatoms absorb large amounts of nitrates and phosphates that are delivered to the ocean by coastal rivers, contributing to their population explosions.

Everything in the ocean feeds on diatoms and other plankton, either directly or indirectly. Even the great baleen whales, like the Gray Whale, filter plankton and diatoms as part of their diet. When the surf zone become too saturated with diatoms, they wash ashore or in our case the ‘brown foam’ also floats up the Siuslaw River during the incoming tide.

When they do wash ashore, it is in such great quantities that they resemble an oil spill or other forms of water pollution. This was the case on December 18, 2013 when the river was as smooth as glass.

Visitors were concerned with the large amounts of brown foam floating on the river; however, the brown foam was a result of 10–12-foot breaking swells at the mouth of the Siuslaw. The breaking swell's (the river bar was closed to marine traffic that morning) action creates the foam at the mouth of the river which travels up the river with the incoming tide. Had the visitors ventured to the North Jetty, they would have seen the phenomenon in action.