

## Oyster Science and History

Oysters. You may think of oysters as that weird shell with that big glob of moving snot inside, but it actually helped the many arriving settlers on the east coast of the United States and the many Native Americans living there. Oysters are really cool. There is so much history of the oyster, from before the time of the Jamestown colony to history still being made today.

Many people wonder how the settlers on the east coast found out how to gather shellfish. The Native Americans were the ones who taught the settlers how to gather shellfish, and also made many things with oysters and oyster shells. They ate them raw or boiled the meat, and used the shells as fertilizers for plants and for jewelry that the native Americans called wampum.

Christopher Newport and his exploring party went up the James River in May, 1607. One of the foods they were served by a Native American tribe was freshly boiled mussels. Some boys had been sent to dive for them on the visitors' arrival. Once the exploring party learned how to gather shellfish they were amazed. Once they got back to Jamestown, they showed the settlers what they had learned. Because there were a lot of oysters, it helped the settlers survive. When they all got to the New World, they had brought plants and animals from London for food. After a

while, most of the plants and animals died because they were not used to the different climate.

Overall, oysters have been around a long time and are a major help for the environment. They filter the water to consume their food, like plankton. Oysters can maintain the balance of a marine ecosystem by reducing excess algae and sediment that can lead to hypoxia, or low oxygen levels, which causes other marine life to die. The oyster population of the Chesapeake Bay used to filter the entire water volume of the bay in just three days. However there has been a major disease that was discovered in Virginia in 1950 called *Dermocystidium marinum*, which has impacted the number of oysters.

*Dermocystidium marinum* is a disease that causes warm-season wasting disease. It continues to actively kill more and more oysters where oyster beds or populations are found in high salinity waters. There is another disease called the Norovirus, and instead of harming the oysters, it actually harms humans.

When people eat contaminated raw oysters, the Norovirus causes vomiting, diarrhea, stomach cramping, fevers, chills, headaches, and muscle aches. It is created when shellfish are exposed to human sewage. Sewage gets into the rivers and oceans when beachgoers use them as

their toilet or from leaky septic tanks. Bacteria in the water that the shellfish filters as it eats may contaminate the oyster. The water and particles from the Norovirus accumulate in the oyster meat. After the shellfish has been taken out of the water it is cracked open and served. Oysters are known to mostly be eaten raw, if the oysters were eaten cooked the virus would most likely be cooked out.

After all, the oyster isn't just a shell. It helped the early settlers and Native Americans survive, and remember that even today people are still using the amazing oyster.