

Bay Shore Historical Society

May 17, 2019

Joe called the meeting to order at 7:05 p.m. The pledge was recited, followed by the following mention of local events:

- May 27, 2019 – the Memorial Day parade. Information was shared on the meeting location for those marching/driving in the parade and others were invited to participate.
- Joe announced the annual Open House, sale and barbeque to be held on June 1, 2019 from 12-4 pm. Hot food would be served up until 2 pm to members, their families and friends.
- The annual Art Festival, held on June 9, 2019 was announced. Volunteers were invited to help out throughout the day.
- A brief summary was given of the previous month's talk on the Bayard Cutting Arboretum.
- It was announced that next month's speaker, Bill Blyer, would be giving a talk on "*The Little Known Facts of Long Island Maritime History.*"
- Finally, Joe thanked all who had brought refreshments.

Joe introduced the evening's guest speaker, Maureen Dunn, water quality scientist from Seatuck. She would be talking about the *Half Shells for Habitat* project.

Ms. Dunn began by sharing the mission of Seatuck: to conserve wildlife and its many habitats. Next, she presented a brief history on oysters. Ms. Dunn said that oysters first appeared on the earth 520 million years ago, before dinosaurs and mammals. Originally, oysters were quite small. In the past 10,000 years, bay oysters have grown larger to the size most people are familiar with today.

Ms. Dunn provided information on how oysters are advertised on various restaurant menus. She explained that the species of oyster is the same throughout the coastal regions, Maine to the Gulf, but that oysters get their unique taste from the mud they live near and their local waters.

She finished the history segment of the talk with some fun facts:

- Native Americans, living along the coast of New York, began eating oysters nearly 7,000 years ago. Archeologists have excavated *kitchen middens* (piles of oyster shell compressed by soil and rock). The large number of excavated middens indicated mass over-harvesting in the coastal bays.

- 400 years ago, in the 1600s, New York Native Americans were eating oysters as a delicacy-usually baked.
- In addition to the Native Americans, Romans also ate oysters during ancient times and Abraham Lincoln was known to have thrown *oyster parties*.
- In the late 1600 and 1700s, oysters began to get smaller due to over harvesting.
- Most of the oysters we eat today are cultured or farmed.
- The warming of the bay and coastal waters has caused oyster to become susceptible to disease.
- The South Bay was the best and largest producer of oysters.
- Oysters are the only creatures we eat alive (yes, alive).
- Live oysters filter about 50 gallons of water daily.

Ms. Dunn then began the focus of her discussion, *Half Shells for Habitat*. She explained that their soft calcium carbonate shells dissolve and allow oysters to fuse/cement themselves to each other forming natural reefs.

Oysters and reefs face two problems today:

Problem 1- Ocean Acidification: the result of air pollutants that enter the ocean via rainfall. These pollutants increase the carbon dioxide levels of the ocean. This in turn changes the ocean's pH balance, making the ocean more acidic. As acidic ocean water has entered the bay, the acid levels of bay water has increased. Too much acid prevents new oyster shell formation. Therefore, small oysters are not able to make their own shells, so they die.

Problem 2 – Coastal Acidification: which is caused mainly by fertilizers, sewage and storm water run-off. Suggestions were made as to how coastal communities could reduce some of the aforementioned problems. Ms. Dunn stressed that coastal acidification is the greater problem and it is one that humans can take steps to change.

Ms. Dunn explained that **acidification** hinders the growth and proliferation of oysters. Seatuck is recycling collected oyster shells and putting them back into the bay. When the calcium carbonate of their shells dissolve, the chemical make-up of the water changes and helps restore the bay water to a more neutral pH level. Therefore, healthy oysters help maintain the health of local waters and bays and minimize algae blooms.

Ms. Dunn went on to explain algae blooms. She said that the warming of bay water causes algae to grow. When the algae dies, it sinks to the bottom of the ocean and give off harmful carbon dioxide.

Ms. Dunn briefly discussed a number of legislative bills before the Senate to help bring awareness to the problems caused by acidic coastal environments. It is the hope of environmentalist, that these bills will become laws that will bring about change.

Ms. Dunn explained the oyster shell recycling project-*Half Shell for Habitat*. Oyster shells are collected weekly from local restaurants and brought to compost sites across the island. One is located nearby in Islip. The shells are composted for about six months and then returned to local waters. These recycled shells become artificial reefs as their shells dissolve and fuse together.

These artificial reefs act as shoreline stabilizers. Oyster reefs slow ocean waves through the bays, providing protection to coastlines. This is one of the newer methods being used to, hopefully, provide the coast some protection during storms and aid in reducing the effects of rising sea levels.

The Shellfish Restoration Plan:

- The shellfish restoration plan gives money to hatcheries to cultivate more oysters and clams. In addition, they support local seafood restaurants with information on how they can be more eco-friendly and participate in shell recycling.
- At present, Seatuck has established five new shellfish sanctuary sites- all in Nassau and Suffolk counties.
- Currently, 25 local restaurants participate in oyster shell recycling. Ten to 12 are local establishments. Seatuck encourages patronage of these eateries. Some on the list are The Cull House, H2O, Tellers, the Lessings Restaurant Group, Catch Oyster Bar, and Captain Bill's.

Ms. Dunn' presentation ended around 8:00 and was followed by a lively question and answer session that lasted nearly 25 minutes. Questions included oyster and kelp farming, aquaculture, restaurant participants, sterile oysters, area breach locations and the possible use of artificial reefs.

Joe thanked Ms. Dunn and invited all to share in some refreshments.

Respectfully submitted by Susanne Ankner