



## What We've Been Up to: Shellfish Restoration Program

Coastal Steward LI has officially reached the halfway point in our Shellfish Restoration Program, and our oysters are doing better than ever! They are staying healthy, increasing in size, and filtering lots of water. For the last month our volunteers have been dedicating their Saturday mornings assisting in setting up for our days, cleaning the oyster bags, and splitting them to promote better growth. We grow our oysters in mesh bags, allowing us to keep them contained while also creating an unrestricted area for them to filter feed. These bags are then placed into what we like to call our “condos” which are pictured below. If you’re ever in Mt. Sinai harbor these can best be seen at low tide. As these filter feeders have continued to grow successfully, our volunteers have been able to place more condos into the water to help keep our oyster population going strong.

Through our programs not only do we get to reconnect with previous volunteers but also meet new ones! We have the privilege to create a community of hard working people within our organization, while inviting lots of others to join. Having school groups, clubs, boy scouts, and girl scouts allows us to introduce people to the marine life on the north shore of Long Island. If you think your group may be interested in joining, check out the meeting dates below or on our website and come on down!

Earlier this summer the Town of Brookhaven upgraded the Mt. Sinai Harbor Shellfish Facility. With their new additions they can now increase the number of shellfish they raise in order to help clean our waters. Coastal Steward LI is one of the few organizations that receives oysters from the town. The support that the Town of Brookhaven has shown Coastal Steward LI is phenomenal and it has been awesome getting to work so closely with them! Click [here](#) to learn more about other improvements made!





## Interested in Joining our Shellfish Restoration Program?

Make sure to stay tuned for updates on when we may start conducting beach cleanups again!

Head over to our website at [coastalsteward.org](http://coastalsteward.org) and click on our News and Events tab. Once we have received the necessary approvals from the various municipalities involved, we hope to be able to resume some of our cleanups through the summer and into the fall. Our next Shellfish Restoration Program dates for the month of September are:

**September 5th from 8:00am - 12:00pm**

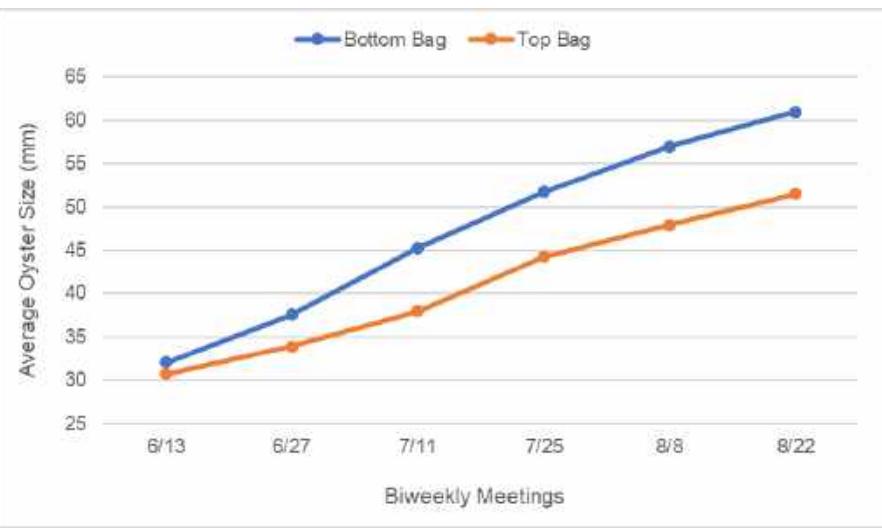
**September 19th from 8:00am - 12:00pm**

As more members of the community come out to join Coastal Steward LI, we like to hear their experiences and what they enjoy most about working with us! This month we were fortunate to speak with the founder of Coastal Steward LI who you could hear the love for his creation in his voice:

*David Johnson is the founder of the Coastal Steward Long Island, he started this non for profit organization in order to help bring Long Island's community together. After completing his marine biology degree from Stony Brook University he began hosting beach clean ups with some friends through the International Coastal Cleanup. These gatherings kept growing larger until it turned from a few friends with garbage bags to over 200 volunteers and overflowing dumpsters. Dave's group of volunteers accounted for less than 2% of all participation from New York state but they collected over 20% of the weight in garbage. After about 10 years and countless cleanups Dave received many grants and started a board of directors in order to create his baby, Coastal Steward LI. He expressed great passion in the field of marine science and felt that the younger generations did not have the motivation or the will to get outdoors and make a difference. However, the programs he was running were beneficial for everyone in order to get community service and learn that small changes can make a big difference. Coastal Steward LI is a way to bring communities from all over together and show people the marine life that Long Island is surrounded by and why it should be protected and kept pristine. He believes that it is imperative for children to witness and take part in cleaning beaches, being in the shellfish restoration programs, and be educated about our environment in order for them to make a difference for our future. It was Dave's perseverance that helped to get his idea off the ground. Taking part in town meetings, introducing himself to everyone he met, and always discussing his passion was he able to receive lots of help through sponsors, donors, and volunteers to make his dream come true. He has much to be proud of as Coastal Steward LI has been able to release over 500,000 shellfish into Mt. Sinai and Port Jeff harbor, pick up thousands of pounds of garbage, and educate our future leaders. As Dave now lives in Florida running his own business, he has plans to begin another Coastal Steward organization in order to bring change to his new community.*



One of our volunteers, Ethan, a freshman at Stony Brook University, is conducting an experiment with 800 individuals from our oyster population. His goal is to determine which conditions are most optimal for the oysters and has been tracking their growth and mortality rate carefully over the last few weeks. Ethan has two designated bags in one of the condos, one that he has placed on the top shelf and one on the bottom. At the start of our biweekly meetings he and a few other volunteers sort out any oysters that may have died and continue to measure the growth of the living ones. The graph above displays the average size of our remaining oysters from the top and bottom bags. While both bags started between 30.0 and 33.0 mm the bottom bag seems to be growing quicker than the top. This difference may be due to the bottom bag always being submerged under water even at low tide, therefore experiencing a greater exposure to food sources. Obtaining and understanding the data above may help us to determine more favorable conditions for oyster growth in order for us to care for our future populations.



## Be a part of The Solution not The Pollution!

Coastal Steward LI's mission is dedicated to restoring and preserving Long Island's coastline. While we are still waiting on permission for beginning our beach clean ups, we have been ending each day at our Saturday SRP by strolling up and down the shoreline picking up any garbage we see. Having volunteers from the local community aid in cleaning up creates a large impact on their understanding of the destruction that garbage can have in our waters.



Everyone knows to cut the plastic rings from can packaging for sea turtles, but did you know that we have turtles in Mt. Sinai harbor too? These guys are called terrapins and are pretty shy creatures who tend to swim away when you get near them. Terrapins and other marine animals like fish, crabs, and birds can be harmed by the waste in our waters and it is important to dispose of your garbage properly. So please come join our SRP Saturdays and help us clean the beach at the end of





the day!

## Ever Wonder About the Wildlife and Plants You See on Long Island's Shorelines?

When our volunteers get together to spend time outside, they get to observe all the interesting wildlife and learn some cool new facts! Here are some of the things that we've learned and would like to share with you!

### Native Species: Horseshoe Crabs

During the first couple of weeks of the SRP we got to observe multiple horseshoe crab nests with eggs in them! Across the world there are 4 other species of horseshoe crabs but only one in North America. Males and females come onto shore during the night of a spring high tide in order to mate and lay eggs, a female can lay up to 100,000 throughout the week! These tiny green eggs will hatch at the next spring tide and help to feed thousands of shore birds every summer. Horseshoe crabs are extremely unique creatures due to their type of blood cells. Within these cells is something called Limulus Amoebocyte Lysate, a type of clotting agent, that reacts when in contact with bacteria. Pharmaceutical companies use their blood to ensure the cleanliness of their products to help keep us safe and healthy. Horseshoe crabs are not endangered but they should always be monitored due to their high demand for human use. These animals have been around since the dinosaurs and they are referred to as living fossils because their body plan has not evolved in millions of years. Scientists believe that many years ago some of their features may have been used differently than they are today. For example, they have eyes located on the bottom of their tail. These awesome creatures can also magnify sunlight up to 10 times and use ultraviolet light from the moon to have night vision!





Shorebird: Osprey



The Osprey is a migratory bird of prey that can be found primarily near any body of water. Areas along the Long Island Sound are home to many migratory breeding pairs of Osprey. These birds of prey can be seen on man made posts in which they make their nest near a beach. Osprey use sticks, bark, and grasses to make their nest that sit at the top of a platform or a cliff. Some Osprey nests can be small but some can be large enough for a human to fit in! The nest size depends on the amount of eggs in their clutch. They live near the water because their diet exclusively consists of fish and they are the only bird of prey on this continent with a full fish diet. Osprey dive below the water to catch fish, soar along the surface of the water, and dangle their talons in the water to catch a nice fishy dinner. Osprey have a third eyelid called a nictitating membrane to help them keep their eyes dry under water and while flying. In the Long Island Sound ecosystem, the Osprey is a tertiary consumer which means they are at the top of the food chain. One can see these majestic birds soaring high in the sky, diving into the water, or roosting in its nest. This bird of prey migrates to Central and South America in the winter and migrates North in the Spring, so after a few months of cold winter conditions, seeing an osprey is a good sign for the start of Spring!



For more information, visit our webpage

<https://www.coastalsteward.org>

