

# Natural Resources Protective Association

Coalition Against Water Disposal of Contaminated Sediments

Post Office Box 050328 · Staten Island, NY 10305



SUMMER 2019

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## BALD EAGLES AND OTHER CREATURES RETURN TO NYC

By Jack Bolembach

I saw two Bald Eagles in a tree that are a mating pair. They first arrived at Mount Loretto in the Spring of 2016 but they only succeeded in having two babies that survived in 2017. Each Spring they build a nest as they have done again this year.

I met a few bird watchers and walked around with them. This is the first pair of mating Bald Eagles in the New York City area in over a hundred and fifty years. The Bald Eagles are here because the Bay now has an abundant source of food. Not too long ago, the waters were too polluted to support a mating pair of Bald Eagles. Ospreys are also seen at Mount Loretto and many other species of birds and wildlife. Dozens of deer live in the park too.

In 1970, a survey estimated that only two dozen Bald Eagles were living in all of New York State. The pesticide used by farmers called DDT and the acid rain that formed from the pollution emitted from power plants in the south and mid-west were killing fish in the lakes of New York and New England. These fish were a food source for Eagles and their sharp decline, along with the use of DDT, nearly decimated the Bald Eagle population. As a result, the Bald Eagles were placed on the endangered species list.

DDT was ultimately banned and strict pollution controls at power plants were put into place. As a result, today we see a remarkable comeback in the Bald Eagle population as well as in other species of wild animals.

It was recently discovered that the herbicide Round-up adversely impacts the environment and is a known carcinogen. It was sprayed on crops and weeds. This could be a reason why people are developing many types of

cancers. Try to eat organic if possible and look up the list of the “Dirty Dozen” environmental toxins.

In the 1970’s, the waters were so polluted that very little sea life existed. Due to the clean waters in the Harbor and Bay, the microorganisms and fish have started coming back in the 1990’s. Forty-five years of fighting and reducing pollution as a result of the Clean Water and Clean Air Act has created an ecosystem where wildlife has returned and is now thriving. An interesting outcome of cleaner water was seen in the foundation of the shoreline walkway alongside the Financial Center at the Hudson River. It was originally constructed with wood pilings. But as the Harbor became cleaner, microorganisms which bored into wood returned and undermined the foundations. The architects and engineers never thought these organisms were an issue because the harbor was so polluted for a hundred years. They had to build cofferdams and pour water resistant concrete to form new foundations.

Occasionally, prior to 2000, a few seals and whales might be seen near New York Harbor but they could not survive because of the pollution and lack of an adequate food source. As the Harbor became cleaner, seals arrived



This photo taken with my iPhone of the two Bald Eagles sitting in the tree.

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Close-up of these two Bald Eagles taken by a woman with a telephoto lens. I took the photo with my iPhone off the screen of her camera.

around 2000 and over the last 19 years they have established a large colony on Swinburne Island. Tour boats depart from Sheepshead Bay during the winter months so people can observe seals on Swinburne Island.

The seals leave in May and migrate north to the coasts of Montauk, New England and Canada. They have their babies in the nutrient rich colder waters and return in November. Humpback Whales have been seen in the Lower Bay off Staten Island and even in New York Harbor feeding on fish as they make their Spring and Fall migrations to and from Canada and the Caribbean.

Because the water is now cleaner, Oysters are now being placed by marine biologists in strategic locations around the harbor and bays. In the mid-1800's and earlier, the City of New York had the largest Oyster populations in the world. In Conference House Park, you can find evidence of Oyster shells on the surface of the ground where Woodchucks have made burrows. These Oyster shells are hundreds of years old. They were taken from the Bay by Native Americans as a rich source of food. Native Americans lived in the area reaping the abundance of seafood from Raritan Bay. A Native American burial ground was discovered in the 1890's by archeologists from the Natural History Museum under a ridge about three quarters of a mile southeast of the Conference House, which was built in 1680. It's called Burial Ridge and today is safely protected within the established parkland.

None of these things were possible in the 1970's when the waters were very polluted. The waters will continue to improve as long as funding is provided to keep the 14 Wastewater Treatment Plants within the City of New York operating efficiently and staffed with highly trained, skilled trade workers. New Jersey, Long Island and Connecticut along with the municipalities along the Hudson, Raritan and Passaic Rivers must all continue to do their part in safeguarding the environment and fighting the discharge of pollution into the waterways.

## ACOE HARBOR AND TRIBUTARIES STUDY (HATS)

By Jim Scarcella

The Army Corps of Engineers recently released preliminary scoping documents related to the NY/NJ Harbor and Tributaries Study Coastal Storm Risk Management (HATS). Several alternatives are being proposed, and each has its own benefits, analysis, risks, cost, ecology disruption and much more.

Historical storms have severely impacted the NY/NJ Harbor region. The study is assessing the feasibility of coastal storm risk management alternatives that can be implemented within the very large authorized study area (NY /NJ Harbor, the Rockaways, the Hudson River, the Raritan, the Passaic, Lower Bay, the eastern portion of Long Island Sound, the Hackensack, and more). The public meetings were held in Brooklyn, Staten Island, Poughkeepsie, the Bronx, Middletown and the Customs House in Manhattan.

The Staten Island meeting was held on a Tuesday evening at Sailors Snug Harbor.

I took the S-44 bus from the St. George ferry terminal, traveling along Richmond Terrace. As we passed the old US Gypsum plant, my thoughts turned to the tens of thousands of men and women who had worked there during the plant's 80-year operation. Ships were docked there night and day, and the North Shore rail line tracks are still there, running thru the length of the quarter-mile building. The bus passed Leidy's, an Island institution, where the sailors and longshoremen would trade stories, play cards, and share beverages. Several homes nearby were part of the Underground Railroad, providing freedom to African Americans. As I glanced over the guardrail, the waters of the Kill van Kull were roiling by and I saw what looked to be a homeless encampment 25 feet below the sidewalk elevation. Snug Harbor seemed to be deserted, but I found the Music Hall and signed-in with the presentation team. The posters were visually informative. The Corps noted that the five-mile sea wall from Ft. Wadsworth to Great Kills Park is planned, funded, and to be started in 2020.

Basically, the Corps has allotted the value of economic assets in our area to be approx. \$400 billion dollars. Most of these buildings and infrastructure is in flood zones. Several Alternative Plans were presented. Alternatives 1 and 2 are by far, the most expensive and environmentally damaging. Alternative 2 is a 5-mile barrier from Sandy Hook to Breezy Point, shipping lanes, tides, currents, migratory fish, shellfish and wildlife be damned. It is difficult to imagine all of the harmful impacts of this barrier, including the threat that it will result in the retention of sewage in area waterways. The Corps says this will cost \$112 billion and take 25 years to complete. Other Alternatives involve various combinations of smaller flood gates. The Corps has admitted that all of the flood gates will result in barrier induced flooding. Basically, when a storm surge hits a flood gate, it will be diverted to areas alongside of the gate. So, any flood gate will also require massive amounts of shoreline hardening on either side of the gate, adding to cost and environmental impacts.

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There are also concerns about whether this very costly project will address sea level rise, which in many areas, is a big problem.

Although the Corps has provided a lot of information about economic analysis, nothing has been provided about the environmental impacts of any of the Alternatives. The Corp has received many, many comments about this project and they have admitted that most of the comments support using Alternative 5, which involves perimeter protection, such as raising the shoreline. These measures are cheaper, can be done faster and will have far fewer harmful impacts.

We need to stay involved. The project website is <http://www.nan.usace.army.mil/NYNJHATS>.

## OAKWOOD BEACH CLEANUP AT KISSAM AVENUE

*By Jim Scarcella*

Thanks to support from all of you, NRPA cleaned a quarter mile of Oakwood Beach on Saturday. The dumping at the bottom of Kissam Avenue was disgusting, but not as bad as last year. The area is returning to its floodplain, lots of phragmites (which we avoided for fear of ticks) and Red Winged Blackbirds, Snowy Egrets, Yellow Rumped Warblers and more.

On the beach side, there were plastic bags, bait boxes, dead bunker, 2 dead herring gulls, plastic caps, cigarette butts, candy wrappers, beer bottles, a steel dirt bike carcass, fishing line and balloons. I personally carried a large piece of recycled plastic deck. Tony Rose rolled a shipping buoy can 50 ft. up the beach to join the riprap.

As an added bonus, two of us saw a seven-inch Eastern Fence Lizard sunning itself on the berm.

All told 12 persons removed more than 600 lbs. of garbage.



## THE FASCINATING HORSESHOE CRAB – A SPECIAL PRESENTATION

*By Jim Scarcella & Ida Sanoff*

There was a special treat at NRPA's June meeting. One of our Trustees, the distinguished scientist Dr. John Tancredi, gave us an in depth look at the need to protect Horseshoe Crabs.

Dr. Tancredi is the Director of the Center for Environmental Research and Coastal Oceans Monitoring (CERCOM) at Molloy College on Long Island. He has written five books, numerous scientific articles and has led scientific expeditions through Asia, the Caribbean, Europe and even Easter Island and the Galapagos.



Horseshoe Crabs are sometimes called "living dinosaurs" because they have been on our planet, virtually unchanged, for millions and millions of years. Their three sectioned bodies are very similar to the fossils of extinct creatures called Trilobites and the Horseshoe Crab may have descended from them. But they are not really crabs, they are actually related to spiders. These hardy creatures are only found in two parts of the world: The Atlantic and Gulf coasts of North America and in parts of Asia. Here in North America, there is only a single species, *Limulus Polyphemus* and in Asia there are only three species.

We see plenty of Horseshoe Crabs

right here in the NY/NJ Harbor Bight apex, but Dr. Tancredi's research indicates that their numbers are declining. He compared them to the now extinct Passenger Pigeons. At one time, they were the most abundant bird in North America and perhaps the most abundant bird in the world. The population was just enormous. Skies would darken as flocks of literally millions of birds passed overhead. It was said that if someone just fired a rifle straight up, without even aiming, several birds would fall out of the sky, they were packed in that tightly. But by the mid-1890's, flocks were down to perhaps a few dozen birds at most. The last Passenger Pigeon died in a zoo in 1914. The birds had been hunted to extinction. There were just so many of them that everyone thought that this population could survive anything.

Horseshoe Crabs may now be facing the same situation. In Asia, they are eaten and here in North America they used to be used for fertilizer but are now harvested and crushed for use as eel bait. Right here in New York State, the Department of Environmental Conservation (NYSDEC) allows a commercial harvest quota of 150,000 of them, a number that has been unchanged since 2009. But that is not the only threat to their existence. Dr. Tancredi's research shows that they return to spawn in the same place where they hatched. So, if a nest area is destroyed by development, the creatures will not spawn anywhere else. In addition, high levels of nitrogen and pollutants increase crab mortality.

They do not reproduce until they are several years old and come ashore in May and June, on the evening high tides around the new and full moon. They spawn and bury their eggs in the mud along beaches and salt marshes and these are also



(continued next page)

important feeding areas for migratory birds. In some places, like Delaware Bay, thousands of crabs may come ashore to spawn at the same time, churning up recently buried eggs. This provides an important food source for migratory birds, traveling from South America to northern breeding grounds. The birds can almost double their body weight in just two weeks. The eggs and newly hatched larvae also nourish young fish.

Humans owe a tremendous debt to Horseshoe Crabs too, thanks to their sensitive blood. Injectable products such as vaccines, IV fluids, antibiotics and other drugs are sterilized before they are used. But they also have to be tested for pyrogens – substances that can cause a fever. The cell wall – the outer coating – of some types of bacteria, is a pyrogen, a type called endotoxin. Even if a fluid is sterile, it can cause a fever and complications if endotoxin is present. And that is where the Horseshoe Crab blood comes in. If endotoxin is present, it will coagulate (clot) their blood. So pharmaceutical companies routinely test a sample of each lot using Horseshoe Crab blood. There are companies that collect Horseshoe Crab blood and then return them to their habitat. This test is called the Limulus Amoebocyte Lysate test. *Limulus polyphemus* is the scientific name of North American Horseshoe Crabs.



During breeding season, when the crabs come ashore, they are counted and tagged in various locations and Dr. Tancredi's research has shown some disturbing trends. In a sixteen-year trend summary where crabs were counted in locations from Brooklyn to Montauk, there was considerable

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your NRPA membership  
TODAY See page 5**



variation in population numbers from year to year. However, overall, the population appears to be declining by 1% every year. By itself, that doesn't sound so bad. But other data shows that there is a decline in the number of locations where breeding occurs. Over the same time period that the overall population has declined by 1%, there has been an 8% decline in the number of beaches where spawning occurs. And there are more and more beaches where there is no breeding at all. Will these abundant animals soon suffer the same fate as the Passenger Pigeon?

Dr. Tancredi has been able to successfully breed Horseshoe Crabs in his lab and has offered to periodically release some to ensure that they don't die out. But the response has been pure bureaucratic nonsense. The New York State Department of Environmental Conservation (NYSDEC) has refused to allow this, because they do not believe that the population is threatened. And so far, they have refused to lower the number of crabs that can be taken for use as bait.

We are hoping that NYSDEC wakes up and addresses this declining population before it is too late. Horseshoe Crabs are far too important to ecosystems and to humanity to be taken for granted.

#### **NRPA SPRING SUMMARY**

*By Jim Scarcella*

The NRPA has had a busy and productive spring season, with great presentations, environment-enhancing beach clean ups and a successful Environmental Fair.

Presentations from Clean Ocean

Action about the dangerous, backward NESE Williams Pipeline, Parks Department Fresh Kills Park, and then a great session from Malloy College (John Tancredi) about the invaluable *Limulus* (Horseshoe Crab).

The beach clean ups started at Tarlton Avenue (Oakwood) with great help from students of St. Joseph's by the Sea, where we found rugs and auto parts, along with single use plastic bags.

We then mobilized with Friends of Kivlehan Park at New Dorp Beach. This particular event was augmented by the Student Conservation Association of Massachusetts, who were visiting the Big Apple and wanted to participate in a volunteer activity. The sight of close to 50 young adults walking down New Dorp Lane to assist Howie, Mary Ellen, Maxine, Kathy and Tony was extremely encouraging. Over 400 lbs. of garbage was removed.

Next, we assisted NYC H2O with the Conference House Ecology Day. At this clean up, the Sea Vikings football team removed a construction excavator tire that weighed over 400 pounds and many bait packages left behind by fishermen. The IS 7 Bernstein Green Team was on hand to assist and sadly a strangled lobster was found in tangled, discarded netting. Over 2,000 lbs. of debris was removed, with an additional 40 lbs. of metal and glass recycled.

Then we tackled a new area of Oakwood Beach, at Kissam Avenue. (see related article).

Next up was a cleanup with Urban Park Rangers at Lemon Creek Sharrott Avenue Pier. We cut back the overgrown weeds to help prevent tick bites. The Rangers concentrated on bottle caps and cigarette butts. We set the killifish trap at the salt pond south of the

**Taking part in a beach  
cleanup is one way to  
keep the oceans healthy  
for generations to come.  
Join us at our next  
beach cleanup!**

pier, and we were rewarded with over 40 banded fish that we put into the tank with a pump the Rangers brought. It was beautiful to observe the mummichog schooling and swimming. We removed over 600 lbs. of garbage and recycled an additional 40 lbs. of glass and

aluminum.

Finally, NRPA collaborated with S. I. Zoo Education Department and docents for a great clean up at Lemon (Lou Figurelli) Creek Park, Seguine Point. Thirty volunteers removed beer cans, bait bags,

fishing debris, household items and fast food containers. We also rescued three horseshoe crabs. Over 500 lbs. of garbage was removed and another 50 lbs. of glass and aluminum was recycled. Thanks to Richie Chan, Tony Rose, Chuck Perry, John Muller and the Zoo crew.

### Upcoming Events:

**NRPA MEETING LOCATION** is at the **Regina M. McGinn, MD Medical Education Center** at Staten Island University Hospital 2<sup>nd</sup> floor, 475 Seaview Ave, Staten Island, NY 10305

**Tuesday, August 6, 2019** - NRPA monthly meeting

**Tuesday, September 3, 2019** - NRPA monthly meeting

**Saturday, September 21, 2019** – NRPA beach cleanup at Lemon Creek Park at Sharrott Avenue with the Protectors of Pine Oak Woods from 9:00 AM - 12:00 PM. Gloves, bags and refreshments provided. Community service hours certified. For more info: Jim Scarcella 718-873-4291 [click here for directions](#)

**Saturday, September 28, 2019** – NRPA beach cleanup at Cedar Grove Beach from 9:00 AM - 12:00 PM. Meet at Cedar Grove Avenue and Ebbits Street in New Dorp. Gloves, bags and refreshments provided. Community service hours certified. For more info: Jim Scarcella 718-873-4291 [click here for directions](#)

**Tuesday, October 1, 2019** - NRPA monthly meeting

**Saturday, October 5, 2019** - Beach cleanup at Lemon Creek Park at Seguine Avenue with Councilman Borelli and NYC H2O from 10:00 AM - 1:00 PM. Gloves, bags and refreshments provided. Community service hours from NYC H2O. For more info contact [Councilman Borelli's office](#) or [NYC H2O](#) [click here for directions](#)

**Saturday, October 12, 2019** – NRPA beach cleanup at Oakwood Beach at Tarlton Avenue. Discover the beach before the construction of the East Shore Seawall. Community service hours certified. For more info: Jim Scarcella 718-873-4291 [click here for directions](#)

**Wednesday, October 15, 2019** – NRPA-COA Student Summit for Marine Ecology sponsored by Con Edison and Staten Island Borough President. More info to be announced by Tony Rose.

**Saturday, October 26, 2019** – NRPA beach cleanup at New Dorp Beach from 9:00 AM - 12:00 PM. Meet at the foot of New Dorp Lane. Gloves, bags and refreshments provided. Community service hours certified. For more info: Jim Scarcella 718-873-4291 [click here for directions](#)

**NO NRPA MEETING IN NOVEMBER DUE TO ELECTION DAY**

**Tuesday, December 3, 2019** - Holiday gathering at the Blue Heron Nature Center 7:30 PM [click here for directions](#)

**Dedicated to preserving the marine environment, the Natural Resources Protective Association is a 501 (c) (3) non-profit organization. All contributions are tax deductible.**

**All memberships expire on December 31, so please renew NOW!**

(All memberships paid after October 1 will also receive credit for the upcoming year)

Are You A Member? Have You Renewed? Please Join Us NOW!

- \$15.00 Individual**
- \$25.00 Organization**
- \$500.00 Lifetime Member**

- \$20.00 Family**
- \$100.00 Sponsor** (after 5 payments you become Lifetime member)

**YES! I/We want to join the fight!**

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