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## Barnegat Bay Master Naturalists

The Barnegat Bay Volunteer Master Naturalist program is currently the only one of its kind in the state of New Jersey. The [Barnegat Bay Partnership](#), in coordination with Ocean County College, currently has a corps of 100+ volunteers. Master Naturalists receive 40 hours of training through classroom and field experiences, where they learn about a wide variety of ecosystems throughout the Barnegat Bay watershed, including riparian, estuarine and marine habitats. After graduation, Master Naturalists provide stewardship in support of

conservation efforts to preserve and protect the diversity of wildlife with whom we share our watershed. We are grateful for the time and talent offered by our trained volunteers who enjoy and respect the Barnegat Bay watershed as much as we do! We also want to recognize the team of Master Naturalists who have offered their time and talents gathering information, writing articles and compiling photos for this Autumn 2021 issue of the Barnegat Bay Partnership's *The Naturalist*: Sarah Stewart (2014), Carol Ann Murphy

(2019), Christine Moran (2017), Casey Wolf (2019), and Lisa Mazzuca (2018). If you are interested in contributing your time and talents to [The Naturalist](#), please let us know. We welcome and encourage Barnegat Bay Master Naturalists to send us a story and photos describing your volunteer experiences. Please send to: Becky Laboy, [education@soildistrict.org](mailto:education@soildistrict.org), or call (609) 991-1534.

## Snowy Owl

Photo and text by Becky Laboy

As the light of the summer sun wanes, birds answer the call to return to their wintering grounds to spend the next few months resting and re-energizing. In “irruption” years, some Snowy Owls retreat to the Jersey Shore. The flat beach terrain is not unlike the wide open spaces of the treeless tundra where they live. Migrant populations of waterfowl provide an abundant food source. Observing a Snowy Owl is a special experience. Respect wildlife by keeping a healthy distance, and remaining clear of the dunes. Learn more about the natural history and movements of [Snowy Owls](#) at [Project SnowStorm](#).



Master Naturalists Katie Blades and Jackie Hayduk visit the Sugar Shack at the FREC, where maple syrup is made.

## More Than 100 Years of Community Science - the Christmas Bird Count

By Carol Ann Murphy



**Snowy Owl, perched on the dunes at Island Beach State Park**

(Photo: Jason Nargiz)

Winter is a special time for bird lovers in the Barnegat Bay Watershed. While avian summer visitors and their offspring leave for points south, the Shore is the winter destination for many migrants from points north. Ducks, geese, loons, and grebes join the year-round residents as well as some gulls, cormorants, and terns who decide that chilling out at the shore beats the long flight south.

Monitoring winter populations is important to conservation efforts and an opportunity for community scientists like Master Naturalists to contribute their time and knowledge of the ecosystems of the Barnegat Bay Watershed. A major source of data is the [Christmas Bird Count](#) (CBC), the annual initiative of the National Audubon Society that tracks information on winter species and their numbers. The CBC is the longest-running community science survey in the world.

Now in its 122<sup>nd</sup> year, the CBC is an organized, formal census comprising area counts from 15-mile circles from across the US, as well as Canada, the Caribbean, and parts of Latin America. Each circle has a team of participants to cover its designated area and a count compiler who collects and submits the data. Each circle must conduct its annual count on a single day from December 14 to January 5.

The CBCs in the Barnegat Bay Watershed cover the Tuckerton, Lakehurst, Barnegat, and Jackson areas. The Barnegat Count is the oldest with data as far back as 1918 according to biologist Rick Radis, compiler for the Barnegat Count since 2005 and a yearly participant since 1974. Each year, 25 to 35 participants fan out in 10 groups to cover different parts of Barnegat's circle, with many participants covering the same area year after year. "Having yearly data collected by same team adds to the value of the data," says Radis.

The Barnegat Count encompasses Barnegat Bay, the coastal mainland, and Long Beach Island, including ponds, streams, and salt marshes as well as upland forest, fields, and suburban habitat. The wide range of habitats yields substantial bird counts. The last Barnegat Count, held on January 3, 2021, reported 130 species and a total of 23,735 individuals. Highlights included Cackling Goose, King Eider, American Bittern, Great Egret, Tricolored Heron, Northern Goshawk, Clapper Rail, Virginia Rail, Dovekie, Razorbill, and a total of 49 owls of 6 species including Saw-whet and Snowy.

Asked about changes he's witnessed over the past four decades, Radis says there have been surprisingly few despite the increases in development and the traffic on Route 9. Once rarities, vultures, Turkey and Black, are now routine for the Barnegat Count which Radis attributes to the rise in the deer population. In contrast, once common Eastern Meadowlarks are now rarities due to the decline in farmland. Certain species were affected by the catastrophic storm that struck the Jersey Shore in 2012. "Superstorm Sandy overran the salt marshes, killing rodents and causing raptors to move inland to find new food sources," he recalls. "The storm destroyed mussel beds, so we saw fewer of the diving ducks that feed on those beds." CBCs can provide key information about how species rebound from such events.



**Clapper Rail, foraging at Edwin B. Forsythe National Wildlife Refuge**

(Photo: Jason Nargiz)



**Eastern Meadowlark, Beach Plum Farm, West Cape May**

(Photo: Jason Nargiz)

The pandemic presented a different type of challenge, but by adapting to COVID-19 guidelines for group activities, many CBCs reported successful counts last year and anticipate holding their counts this winter. All levels of birders can join a CBC, according to Volunteer Master Naturalist Jason Nargiz, an avid birder who has participated in the Tuckerton CBC, hosted by the Southern Ocean Birding Group. "Beginners will be paired with more experienced birders," adds Jason. "It helps to have more eyes out in the field, even if you can't identify the bird. All you need is a pair of binoculars and sometimes you can even borrow those (depending on COVID protocols)."

Interested in exploring Christmas Bird Counts in your area? Here's a link to the [Audubon webpage](#) for information on how to find active circles near you. Here's contact information for the Watershed CBCs mentioned in this article. Check the Audubon website for active circles in neighboring areas.

Barnegat CBC: Rick Radis, [isotria@verizon.net](mailto:isotria@verizon.net)

Tuckerton CBC: [Southern Ocean Birding Group](#), Morry Kapitan, [mlkapitan@me.com](mailto:mlkapitan@me.com)

Lakehurst CBC: Shawn Wainwright, [shawneagleeyes1@aol.com](mailto:shawneagleeyes1@aol.com)

Jackson (Assunpink): Daniel Brill, [dbrill@ecolsciences.com](mailto:dbrill@ecolsciences.com)

# Living Shorelines

By Christine Moran

Rising sea levels and erosion have taken their toll on beaches and marshes along our coasts and in Barnegat Bay. Remediation can be in the form of bulkheading or rock rip rap, organic material or living organisms, or a combination.

Living shorelines are one type of remediation. Living shorelines incorporate live plants and/or animals to prevent further erosion of land. They can protect homes and businesses from storm surges and damage. In some instances, they provide superior protection over permanent structures like bulkheading and rock breakwaters. Living shorelines can also provide shelter for plants and animals, nesting areas for terrapins and birds, habitat for commercially important mollusks like clams and oysters and enhanced foraging areas for birds and fish.

An area is identified as a candidate for remediation based on erosion rate, elevation, prevailing wind and wave conditions and soil type. The living component is typically live plantings on the shore, submerged aquatic vegetation (SAV), or oyster reefs. Some designs include both hard surfaces such as rock breakwaters and biologic materials such as salt tolerant plants.

After identifying a site, a preliminary evaluation is done. This evaluation might include seining studies, water quality measurement, underwater mapping around the area and monitoring terrapin and bird nesting sites. Installation can take anywhere from days to weeks. Each site is unique. A specific system may work for one area and not in another.

**NOAA**  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
U.S. DEPARTMENT OF COMMERCE

## LIVING SHORELINES SUPPORT RESILIENT COMMUNITIES

Living shorelines use plants or other natural elements—sometimes in combination with harder shoreline structures—to stabilize estuarine coasts, bays, and tributaries.

- One square mile** of salt marsh stores the carbon equivalent of **76,000 gal of gas** annually.
- Marshes trap sediments from tidal waters, allowing them to **grow in elevation** as sea level rises.
- Living shorelines improve **water quality**, provide fisheries **habitat**, increase **biodiversity**, and promote **recreation**.
- Marshes and oyster reefs act as natural **barriers** to waves. **15 ft** of marsh can **absorb 50%** of incoming wave energy.
- Living shorelines are **more resilient** against storms than bulkheads.
- 33%** of shorelines in the U.S. will be **hardened** by **2100**, decreasing fisheries habitat and biodiversity.
- Hard shoreline structures like **bulkheads** prevent natural marsh migration and may create seaward **erosion**.

The National Centers for Coastal Ocean Science | [coastalscience.noaa.gov](http://coastalscience.noaa.gov)  
Some graphics courtesy of the Integration and Application Network, University of Maryland Center for Environmental Science ([ian.umces.edu/symbols/](http://ian.umces.edu/symbols/))

## Local Examples of Living Shorelines

### Mordecai Island

This living shoreline is located off Beach Haven, Long Beach Island. Mitigation efforts against erosion on the western side of this small island have been done since 2007. Prevailing winds and currents undermined the edge of the marsh there. In 2007, biologs made of organic material and dune grass (*Spartina spp.*) plantings were installed. The biologs were made of coir, which is a by-product of the coconut industry.

Additional biologs were later installed under the eroding lip of the marsh to prevent further damage and geotubes were added approximately 75-100 feet from shore. Geotubes are polypropylene sacks filled with sand that allow water flow through.

In 2016, an oyster reef was made for the island. This reef is a combination of a hard structure and living oysters. A cast of sand, cement, limestone and oyster shell formed a substrate for living oyster spat. Eyed oyster larvae obtained from the Rutgers Aquaculture Innovation Center were mixed in upweller tanks with the cement bases before installation on the reef. After the oyster larvae attach to the cement bases (about 10 days) the colonized castles are moved to Mordecai Island by boat and placed along the western side of the island to form an oyster breakwater. In addition to the breakwater, concrete Wave Attenuation Devices (WAD) were placed near the oyster reef to deflect the force of the waves.

Thanks to Jim Dugan of the [Mordecai Land Trust](#) for providing details of these two local projects. Stay connected on [Facebook](#).

### Iowa Court

Another local example of a living shoreline has been established on Iowa Court on Osborn Island. This living shoreline was a combination design. This area in Little Egg Harbor Township was experiencing severe erosion at a small beach in a cul de sac. For this project, a rock breakwater was constructed a few feet offshore atop a wooden bulkhead. Notches were placed at intervals within the bulkhead to allow for water flow with the tides. Oyster spat attached to shell were installed between the rocks. Sand was added as fill in the area between the rocks and street end and *Spartina* plugs planted in this area. The project was completed in 2020. Barnegat Bay Partnership monitors and maintains this area.

For more information and short [video of the Iowa Court shoreline](#), see the [Nature-based Shorelines](#) page of the [Barnegat Bay Partnership](#) website, and on [Facebook](#).

Iowa Court Living Shoreline (Photo: Christine Moran)



## Species ID Quiz

By Sarah Stewart

**Are You a Bird Brain? How's your bird ID skills?**

**Can you identify the 4 birds below? Click the pic to hear their calls!**

*(Answers on the last page of the newsletter.)*



Photo: Becky Laboy



Photo: Becky Laboy

### Species #1 & 2: We share similar coloring, but that is about all we have in common.

**Species #1:** I am a 'Piney' in every sense of the word! I call the Pine Barrens home along with other forested environs with deciduous and pine trees. My common name reflects this as I like to sit high in pine trees where you hear me usually before seeing me. My favorite meal is insects, but if insects are scarce, seeds and berries are agreeable, as well. I will frequent bird feeders and feast on suet if nearby. You will see me in NJ during breeding season, but during winter my numbers dwindle, as many of my kind are 'snowbirds' and migrate to nearby southern states.

**Species #2:** Casual birdwatchers can identify me when I'm in my full breeding plumage of striking bright yellow. In wintertime, my colors are muted and drab. I have a bouncy flight pattern. My natural habitats are floodplains and weedy fields where I can find my favorite Asteraceae plants (sunflowers, asters, thistle). My skilled acrobatics allow me to climb plant stems and hang upside down if necessary to get at the prized seeds from grasses and trees. I am a seed-eater extraordinaire! You can also catch me at feeders, though most often in the winter. Few people may realize that the colorful Cardinal is my close cousin. I have been given the honorary title of NJ's state bird..

### Species #3 & 4: We are migrants. Can you name us?

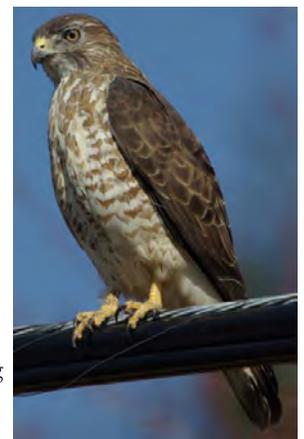
**Species #3:** In Autumn, you will see me gathering near water bodies with thousands just like me for our annual migration to the southeastern United States. In the air, we may appear to move as one, grabbing insects on the wing and on the water. During my spring and summer stay in NJ where my focus is on breeding, you can find me in many open areas, including meadows, marshes and near lakes and ponds where I can nest and catch insects - my primary



Photo: Becky Laboy

food item. I also have a special fondness for Northern Bayberries! I may take advantage of an empty Bluebird box for nesting, which is the perfect size for me. A vacant hole in a dead tree will also suffice.

**Species #4:** NJ is my breeding territory, but come October, you may see me and thousands of my brethren soaring in the sky taking advantage of some thermal updrafts, 'surfing' the skies in [kettles](#) preparing for our migration south. Our kettling maneuvers often bring many birdwatchers out to see this amazing show in the skies! Our destination is northern South America. The flight to my wintering grounds covers about 4,400 miles and I usually log about 70 miles/day. I am small for my type, with black and white bands on my tail.



Wikimedia Commons, [Julie from VT](#)

The inner forest is my chosen habitat where I may be hard to see, but you may locate me from my shrill two-part whistle "kee-eee." My diet is mostly small mammals and insects which I hunt from tree limbs below the tree canopy or utility poles.

## Are You a Botanical Genius? Plant ID Quiz

By Sarah Stewart

Roots, stems, leaves, flowers, fruits and seeds - all parts of the plant provide botanical clues for identification. Habitat is also an important component of field ID. Can you guess the common name of each of these species? How about the scientific name?

(Click on photos to reveal each plant's identity. Answers also found on the last page of the newsletter.)

**Plant Species #1:** This iconic perennial flower is a favorite amongst gardeners and pollinators alike. It is highly prized by one of the above birds. Which bird? Butterflies, bees, and hummingbirds are frequent visitors for its nectar. A concerted effort by breeders to expand the color options (beyond pink/purple) has helped push this humble flower into a 'rock star' of the garden (Jamie McIntosh/the spruce.com). The plant is tolerant of many conditions including drought and poor soil. Its blooming period is long and is self-seeding. Extracts from this plant are manufactured for use to treat the common cold and various respiratory and other kinds of infections. Herbalists may use the plant to create teas, juices, and other applications. Research studies have yielded mixed results regarding the efficacy of its medicinal value.



Photo: Becky Laboy



Photo credit: Vilseskoegen [CC BY-NC 4.0](#)

**Plant Species #2:** A late bloomer and a special wildflower native to New Jersey and particularly, the Pine Barrens blooming from September to November. This is an early successional\* plant that thrives in areas of disturbance. Disturbance is good because it eliminates competing plants and opens up the forest canopy to allow sunlight in. This plant fares best in environments that have been charred by fire and can lie dormant a long time below the soil until fire clears the way for new growth. The blue flower is especially advantageous for pollinating insects in the fall since blue can be spotted more easily amongst all the red, yellow, orange fall colors. Most frequent pollinators are bees and flower or hover flies. Due to fire suppression strategies, land development, invasive plants, and changing water systems, this plant is listed as a **Species of Special Concern** by the NJ DEP. A great place to see these flowers in bloom is the Franklin Parker Preserve in Chatsworth, NJ.

\*Successional – early or first plants to colonize a disturbed area, often after a fire

**Plant Species #3:** This shrub or small tree is often multi-stemmed with fragrant yellow flowers appearing in the fall and often remaining after leaf drop. This plant grows best in full sun and tolerates a variety of conditions (soils – wet and poor, pollution and shade). When rubbed or crushed, the bark, leaves and twigs are very aromatic. A myth of witchcraft held that branches of this shrub were used as “divining rods” to find underground water sources. Extracts from the tannins in the leaves, bark and twigs are used to manufacture lotions and solutions for its astringent and antiseptic properties and various other applications (stop itching, bleeding, and more). Research to date shows that the overall effectiveness for these conditions have yet to be corroborated.



Photo credit: Si Griffiths [CC BY-SA 3.0](#)

## What's Bugging You? Insect ID Quiz

By Sarah Stewart and Becky Laboy

There are more insect species than any other species on the planet, and estimated to be about 900,000 known to date. Their sheer numbers may give you reason to get to know them a little better, including their critical pollination services many provide, as well as any invaders wreaking havoc on our native ecosystems! (*Answers found on the last page of the newsletter.*)

**Insect Species #1:** Even non-entomologists know about us. We comprise about 3,400 species. We are known for our “abrupt appearance”, and our sudden “disappearance”, as well. Our maturation period takes years and years to complete before we can surface to mate, lay eggs, and sing! We spend most of that time below ground. When we do emerge, we come out in staggeringly high numbers, although we soon die after mating and laying eggs. Our wings are made of an interesting substance, *nanopillars*, that kills bacteria, repels water, and self-cleans. It’s a characteristic that has scientists thinking about how they can engineer a similar substance for human use. When young, our diet is mostly juice from roots; as adults we mostly consume tree sap for energy. **Who am I?**



Photo: Geo Lightspeed7 CC BY-SA 4.0



Photo: [Rhododendrites](#) CC BY-SA 4.0

**Insect Species #2:** I may be beautiful, but I am an INVASIVE species! I can move across long distances when people travel with infested wood or other materials, including bricks, stone, vehicles and even your clothing! I prefer to lay my eggs in the Tree-of-Heaven, another invasive species from my homeland, China. But I’m not too picky, I’ll infest fruit trees, as well as other hardwoods, including almond, apple, grape, oak, walnut, maple, pine, sycamore, willow... I’m wreaking havoc on orchards and the lumber industry. If you see plants that ooze, weep or have a fermented odor - that’s me! Sticky fluid on the ground beneath your favorite tree? That’s me! Sooty mold on the tree? Yup, that’s me! I tend to gather in large numbers on the trunks and stems of trees at night. People can find my egg masses when they carefully inspect their trees, or any items they may be bringing inside for the winter. You can [read more about me](#), or [watch a short video](#). When people find me on their property, they [report their sighting](#). **Who am I?**

**Insect Species #3:** You’ve probably seen me flit through your yard or a nearby woodland, showing off my large colorful wings, measuring 3-5.5 inches. The blueish scales on my hindwings indicate that I’m female. Females lay large green eggs, one at a time, on host plants including Tulip (*Liriodendron tulipifera*), Wild Black Cherry (*Prunus serotina*) and Sweet Bay Magnolia (*Magnolia virginiana*). Resembling bird droppings, young caterpillars can fool the eye! As the caterpillars grow, they turn green and develop large fake “eye spots” that scare away predators. If a curious predator does decide to attack, I secrete a volatile acid from glands near my head - that’ll stop ‘em! I have two broods in the north and two in the south. My range extends west to the Great Plains and Central Texas. I nectar on a variety of flowering plants, including [Woodland Sunflower](#) (*Helianthus divaricatus*), pictured right. **Who am I?**



Photo credit: Becky Laboy

## The Beach Plum Festival!

By Lisa Mazzuca

The annual Beach Plum Festival is hosted by the [Friends of Island Beach State Park](#) (FOIBSP) and is held every year on the second Sunday in September. This volunteer, non-profit organization manages several events throughout the year in an effort to raise funds that directly support the educational, recreational and interpretive endeavors of [Island Beach State Park](#). This year's festival was on September 12. The usual fee to enter the park was waived for the day, and an \$8 donation was requested by FOIBSP at the gate. The Beach Plum Festival undertaking is a big one! This year over 100 vendors including artists, craftsmen, apparel, jewelry, food trucks, plant sales and more, came to share their wares. The Friends coordinated with other local conservation organizations to create educational displays and activities for kids and adults. Park Naturalists hosted native plant walks, and games and crafts were provided for guests with small children. The public came out in such great numbers that the Park had to close periodically when the parking lots were filled to capacity.

Which New Jersey native fruit is so prolific, so versatile, so delicious that it has its very own festival?

**The Beach Plum!**

The highlight of the festival is, of course, the [Beach Plums](#) (*Prunus maritima*)!

The Friends sold beach plum jelly, made by the volunteers themselves, for \$5 per jar. Usually they are able to make use of the bountiful abundance of beach plums that ripen all over the park throughout the month of August. It takes volunteers much time and effort to harvest the plums, and unfortunately they did not have enough volunteers available this year, so they purchased beach plums in order to make the jelly they sold at the event.

Another fundraising product provided by the Friends was a specially-made ice cream that they help to prepare each year. The volunteers boil down the beach plums, and strain out the pulp, skins and pits to get 4 gallons of juice. They deliver this juice to Rich Soldo, the owner of [Sundaes The Ice Cream Place](#) located in Toms River. Mr. Soldo then provides the organization 700 cups of beach plum flavored ice cream made exclusively for this event.



In light of the struggle to gather sufficient volunteers needed to prepare for this important annual event, I invite Barnegat Bay Master Naturalists, and anyone interested in supporting Island Beach State Park, to [join](#) the Friends of Island Beach State Park organization, or offer your time as a volunteer. The Friends also have endless opportunities to volunteer beyond festival duties. From their [website](#): “Members of the Friends, many of them park volunteers, also participate in many programs and activities at the park. This includes the Island Beach State Park Beach Plum Festival, Governor's Surf Fishing Tournament, Becoming an Outdoor Woman, Surf Fishing Program, Barnegat Bay Festival, National Trails Day, Surf Fishing at the Beach, Kayak Tours, Nature Hikes, Interpretive Center Staff, and other programs.” Visit <https://www.friendsofisp.org/join/> to get involved today.

There is much educational fun to have at the Beach Plum Festival. When I first arrived I immediately noticed a sign that described the free activities on the day's event schedule, including seining, a native plant walk, clamming, and a children's concert. I joined the first native plant walk right before it began and met my guide, Emma, a park naturalist. She guided our group down a well-cut bayside trail and cheerfully pointed out the [Prickly Pear Cactus](#) (*Opuntia humifusa*) and [Sweet Bay Magnolia](#) (*Magnolia virginiana*). She described the difference between [Poison Ivy](#) (*Toxicodendron radicans*) and [Virginia Creeper](#) (*Parthenocissus quinquefolia*) that tangled together along the forest floor. Poison Ivy has “leaves of 3, let them be”, and “berries of white, run in fright!”, while Virginia Creeper has “leaves of 5, let them thrive”, and “berries of blue, for birds, not you”. She talked about the unfortunate invasion of the [Phragmite Reeds](#) (*Phragmites australis*) that threatens to take over the shoreline. On our way back, she pointed out bird calls, such as the “meow” of the [Gray Catbird](#), and identified a young [Sassafras](#) sapling (*Sassafras albidum*) for the group. One person observed an [Eastern Box Turtle](#) ambling its way alongside the trail, which was a perfect teaching moment for our guide. We learned that turtles inhabit woodlands and open meadows near a stream or pond. Their territories are small, around 250 yards or less; and they never wander too far from home. Box turtles are terrestrial; they are well adapted for a life on land. Their dome-shaped upper shell (carapace) protects them from predators. They have a special hinge between their carapace and plastron (their lower shell) that closes them inside their “box”, for extra fortification. Box turtles are omnivores. Young box turtles prefer insects while adults eat more plants; but their diets also change with the season.





When the nature walk was over, I returned to the main event. Under the covered area of the pavilion, the educational displays, conservation organizations and non-profits were arranged. There was a table staffed by master composters who were discussing the science of combining green and brown organic materials and fostering the microbes that result in the creation of gardener's "black gold", or compost. The New Jersey Lighthouse Society had model lighthouses clearly plotted out on a map of New Jersey. They were happy to share information about the upcoming and highly anticipated annual Lighthouse Challenge! This is a rain or shine, two-day opportunity on Oct 16 and 17 to visit the lighthouses of New Jersey. Visitors will receive stickers for each lighthouse they visit, to be placed on a commemorative collage. Participants who complete the challenge are entered to win exciting prizes! Learn more at [lighthousechallengenj.com](http://lighthousechallengenj.com).

I enjoyed strolling around the festival to visit the vendors and make a few purchases. [Busy Bees](#), a NJ farm from Cape May Court House, was there selling honey and beach plums they harvested from their farm. The owners told me that they have 300 mature fruiting shrubs back at their farm and they hand-picked 5000 lbs of fruit this season. They are all grown organically because they don't want to risk using chemicals around their bees. [The Little Plant Company](#), a local native garden and landscaping service, was there selling potted [Beach Plum](#) shrubs (*Prunus maritima*) for visitors to take home and plant on their property. The craft vendors were outstanding. There were multiple jewelry vendors with unique offerings like custom made glass beads, wire ear wraps and crowns with crystals threaded through them, and jewelry made from the [Northern Quohog](#) (*Mercenaria mercenaria*), the purple streaked clam shells we can find washed up on the shore. A man who carved pendants from foreign coins displayed his intricate pieces while creating them right before your eyes. Another vendor was selling handcrafted soaps and bath bombs. Other local artists were selling fine art prints with beachy themes, sparkling cross stitch pieces, and clever custom aprons made from tea towels. The Friends of Island Beach State Park and representatives from [ReClam the Bay](#) were selling shirts. Food trucks were there to sell festival fare to those who were hungry on the spot, and a few tents sold packaged items like jellies, jams, honey and sauces for guests to purchase and take home. I made a [video showcasing the highlights of my day at The Beach Plum Festival](#) - ENJOY!



**The event was truly a wonderful celebration of his exclusively North American native and versatile fruit!**



Photo: Becky Laboy



## *The Beach Plum (Prunus maritima)*

By Lisa Mazzuca

### Natural History

The Beach Plum (*Prunus maritima*) is a native New Jersey shrub. It can be found growing up and down the Jersey Shore and all along the mid-Atlantic coastal region, from Virginia to Canada, and as far west as Pennsylvania. It prefers dry, well-drained, nutrient poor sandy soil, in full-sun. It is perfectly adapted for coastal environments and thrives in dunescapes. Its hardy structure can withstand blowing sand and salt, and Beach Plum is often found growing half-buried under several feet of sand. It acts as a dune stabilizer, along with [Beach Grass](#) (*Ammophila breviligulata*), [Virginia Creeper](#) (*Parthenocissus quinquefolia*), [Poison Ivy](#) (*Toxicodendron radicans*) and [Seaside Goldenrod](#) (*Solidago sempervirens*), all of which contribute to the biodiversity of the dunes.

Beach Plum is a beautiful ornamental shrub with dark-brown bark. A multitude of small white buds line the twigs and branches, and burst open in early spring - a welcome form of nourishment to waking bees, beetles and other beneficial insects. Five-petaled white flowers house yellow-tipped stamen, offering a contrasting pop of color to the hungry human eye, when many flowering plants are still dormant. After the flowers fall, the leaves appear, later than many other shrubs. Unlike larger fruit trees, shrubby Beach Plum produces fruit quickly, just a couple of years after they are established. The fruit is about the size of a grocery store cherry, with one similarly-sized pit. Botanically speaking, the fruit is a “drupe”.

### Edible Landscape - Propagating Beach Plum

Watch my [video](#) where I show and discuss my Beach Plum plants I'm propagating at home - scroll to 6:50 minutes in!

Beach Plums are growing in popularity as edible landscaping plants and are not hard to find from online sellers or native plant nurseries. They are easy to propagate because the shrubs will send up suckers that can be separated from the main plant and potted up. They can also be grown from seed.

It's important to note that you'll need more than one genetically different shrub planted in close proximity to each other. This means that if you want to harvest beach plums, you can't have 2 shrubs grown from cuttings of the same plant. The bees and other pollinators will need to bring pollen from one shrub to another to fertilize the flowers and produce fruit. Plan to include at least two, but ideally three or more. These shrubs have a mature height and spread of about 6-10'.

In my experience, I had two beach plum shrubs that bloomed at slightly different times, and often missed each other so that the first one would bloom and drop its flowers just as the first buds were opening up on the second one. By adding another shrub to the property I increased the chance of overlapping blooms. My plants are now more effectively pollinated and I get a bounty of fruit from my plants.

When beach plums are laden with fruit, the branches can get very heavy and bend toward the ground. This doesn't hurt the plant and branches rarely break from the weight, however you may want to thin the fruit to increase air flow if needed. When the surrounding flora is dense and branches hang close together, this can foster an environment that invites fungus which can infect the fruit. So keep an eye on the plant as the fruit is developing, and thin it if needed to keep the canopy full of air and light.

In August the fruit will start to ripen and become dark purple. Beach Plums are naturally tart. But the darker the plum, the sweeter the fruit! When ripe, the plums are sweet and tasty when eaten fresh from the bush. Or, you can always try your hand at making beach plum jelly or ice cream like the Friends of Island Beach State Park!



Flowering Beach Plum shrubs in my home landscape! Photo: Lisa Mazzuca

## Blow-Out at Island Beach State Park - Part 1

By Casey Wolf

The band, Hurray of Earth, blasted in my truck on my way over to Island Beach State Park. I thought it was an appropriate choice being I was headed over the bridge with my Master Naturalist hat on to see how the dune grass we planted back in December was doing. At that time, the sky was gray, barely anyone on the road, and the beach itself was empty except for a few die-hard fishermen in waders looking for a fresh meal. This day in August was exactly opposite, with sunny bright blue skies, slow going traffic all down route 37, and the beach full of families enjoying the last bits of summer sun. It won't be long, I thought, that the cycle will start all over, school will start, the beach will empty, and only the full time residents remain.

After everyone packs up and leaves from their summer vacation, the beach and all its natural inhabitants stay. The dune grass we planted had endured countless storms, high winds, changing tides, and encroaching invasive species that could easily overpower the young unestablished plants. Had they survived? Was all that planting washed away with one day of huge swell? I was on my way to find out. The "hole" we planted in had been formed from massive water erosion. It was an area of the dunes that needed help the most. If the hole continued to erode, it would expose the building and parking lot behind it, where visitors use the bathroom, rinse their sandy feet, and park their cars, to ocean water coming through.

It's easy to pick up speed driving through IBSP. The two-lane road is long and straight with beautiful green foliage on either side. If you catch a moment with no other cars or people in view, it has almost an apocalyptic feel. I imagine I am in a place in the future, where nature has reclaimed her land, and people are scarce. Then a couple cars fly by and I'm reminded, I am not alone, and that it is very important to obey the speed limit here, as many birds sadly succumb to an early death due to strikes with vehicles.

### Vanishing Beach Grass

Walking up the boardwalk to the beach entrance at the second pavilion, I am wowed by the ocean conditions. Clean sparkly ocean waves break slowly on the shore. I had to snap a picture. I then went straight to the life guard station to inform them of my intentions of checking on the dune grass. It is important that people respect the dunes and do not walk on them. I would need to come close to check on the plants, and I didn't want them to think I was breaking the rules. They gave the green light and I was on my way over.

Looking at the southern wall of the hole, it looked as though every plant we put in survived the winter! The west end of the hole, also had some plants that made it through. However, the northern side looked almost completely bare with only a few stragglers hanging on. I wondered what would make one side successful, and the other vanish? Strong southern winds? I remember planting the southern side and it was a bit steeper and harder to keep my footing than the north. Had water entered at some point and was able to reach higher up on the northern side of the hole? I also wondered - was about a 50% survival rate of the plants a good number to reach? I looked to Island Beach State Park Naturalist, Kelly Scott, for some insight... **to be continued...**



Photo: Becky Laboy

Blow-out at Island Beach State Park behind the second bathing pavilion. 900 culms of Beach Grass (*Ammophila breviligulata*) were planted by Master Naturalists Casey Wolf, Jim Hutcheson and Jim Wack. December, 2020.



Photo: Casey Wolf

Blow-out at Island Beach State Park behind the second bathing pavilion. The southern plantings survived; the northern and western plantings "vanished". WHY? August, 2021.

A Newsletter for Barnegat Bay  
Master Naturalists and our Affiliates

Barnegat Bay Partnership

Ocean County College

College Drive

Toms River, NJ 08754

Phone: 732-255-0472

Email: [kwalzer@ocean.edu](mailto:kwalzer@ocean.edu)

We're on the web!

[www.BarnegatBayPartnership.org](http://www.BarnegatBayPartnership.org)

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- Connect with other Barnegat Bay Master Naturalists through our [Barnegat Bay Master Naturalists Facebook Group](#).
- Join the Barnegat Bay Master Naturalist [iNaturalist](#) group and share photos of your nature sightings with fellow BBVMNs.

## Answers to Species ID Quizzes

**Are you a Bird Brain?:** Species **A: Pine Warbler**, Song Source: John A. Middleton Jr., XC570603 [CC BY-SA 4.0](#)

**B: American Goldfinch**, Song Source: Thomas Ryder Payne, XC636515 [CC BY-SA 4.0](#) **C: Tree Swallow**, Song Source: Paul Marvin, XC634796 [CC BY-SA 4.0](#) **D: Broad-winged Hawk**, Song Source: Richard E. Webster, XC192488 [CC BY-SA 4.0](#)

**Are you a Botanical Genius?:** Species **1: Purple Coneflower/Echinacea** (*Echinacea purpurea*), Species **2: Pine Barrens Gentian** (*Gentiana autumnalis*), Species **3: Witch Hazel** (*Hamamelis virginiana*)

**What's Bugging You?:** Species **1: Cicada** (*Magicicada septendecim*), Species **2: Spotted Lanternfly** (*Magicicada septendecim*) Species **3: Eastern Tiger Swallowtail** (*Papilio glaucus*)

## Recipe for Beach Plum Jelly



Beach Plums have a naturally tart flavor. With a “little bit” of sugar you can make lots of delicious treats including jams, jellies, syrups, and sauces. Enjoy this recipe for Beach Plum jelly, courtesy of the Friends of Island Beach State Park!

### Ingredients:

3 1/2 cups Beach Plum juice (*Prunus maritima*)

6 cups sugar

pectin

Crush the berries. Strain to remove the skins and pits from the juice. In a large pot, bring the juice and sugar to a roaring boil. Add pectin. Continue to a roaring boil. Skim off the bubbles. Pour into sterilized glass jars. Skim remaining bubbles. Add lid to the jars, and tighten the rings. Let cool. Make sure the lid has a concave seal. Give as gifts or enjoy with friends and family!

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