



AS THE PARK SYSTEM TURNS 60

Milestones and anniversaries are good times to take a look back and see what's changed. Speaking broadly, the big story of the last decade was how technology has impacted the way we interact with each other and the world around us. Enhanced smartphone features, social media, and powerful new apps (and their algorithms) changed how we communicate, shop, travel, and most importantly for agencies like the parks, how we relax and recreate. The last ten years have also seen new recreation trends and environmental changes that affected park operations.

Smartphone Tech & Outdoor Rec

Our phones are with us all the time, including when we go outside. **Taking photos**, including selfies for social media, is one if not the most popular use for a smartphone in the parks. The camera quality of our phones has become so good in the last decade that phones have replaced actual cameras for most casual users. Knowing how much visitors like to take photos, the Park System now provides "photo opps" at many events. Also worth mentioning are the GoPro camera videos taken by outdoor enthusiasts that had a moment this past decade, in part due to the explosive popularity of **YouTube**.



Together with friends, a scenic vista, watching kids at a program... it's impossible NOT to take photos in the parks!



The success and "everywhere-ness" of smartphones also helped emerging social media platforms gain traction. The Park System adapted and moved beyond phone, print and email (though we still have all three) to more direct communication with our visitors via regular website updates and social media.

Facebook became more widely used by businesses early last decade, and the Park System joined around 2009-10. Staff spent the last ten years carefully tailoring how and when to post to best meet the needs the public. Today, **@MonmouthCountyParks** has more than 20,000 followers, an impressive number for an agency of our size.



Now trending...social media.

Twitter reached 100 million users in 2012, per Wikipedia, right around the time the Park System added its account. Today, **@MonCountyParks** has 2,300 followers, many from other government agencies. We often tweet about wildlife/plant happenings and upcoming events. **#YoursToDiscover #NJnature**.



Planned "photo opps" at Wind & Sea Festival and Thompson Park Day.

The Park System joined **Instagram** in 2014 (**moncountyparks**), primarily to post the amusing, descriptive, often stunning images taken in the parks. In the last five years, Instagram has demonstrated a particular strength for showcasing remote park landscapes, helping create a surge in park popularity and attendance locally and nationwide. Instagram remains an important platform for the Park System to share images with its 3,273 followers.

Monmouth County Board of Chosen Freeholders

Thomas A. Arnone, Director
 Susan M. Kiley, Deputy Director
 Lillian G. Burry, Liaison to the Parks
 Patrick Imprevuduto
 Nick DiRocco

Board of Recreation Commissioners

Kevin Mandeville, Chairman
 Michael G. Harmon, Vice Chairman
 Violeta Peters
 Thomas E. Hennessy, Jr.
 David W. Horsnall
 Mark E. Zelina
 Patricia M. Butch
 Thomas Adcock
 Glen Mendez
 James J. Truncer, Secretary-Director

Green Heritage Staff

Editor/Writer: Lisa Bonelli
 Photographer: Maribeth Gardner
 Graphics: Michelle Scolletta
 Questions/Subscriptions:
 732-842-4000, ext. 4336;
 Lisa.Bonelli@co.monmouth.nj.us

Science/weather apps are now used extensively by park visitors to monitor the weather, download trail maps, identify species, or track fitness parameters, in addition to listening to music or podcasts while exercising. From snakes and stars to birds and mammals, apps like eBird and Star Walk have transformed how we interact with nature. It is easier than ever to identify a plant or bird, or if stumped, to quickly email a photo to park staff for their opinion.



Navigating nature with a smartphone app.



Many park users and especially race participants now use **wearable fitness trackers**. This technology first emerged during the 1990s-2000s as enhanced pedometers, sport watches and heart monitor arm/wristbands. Gradually, new and improved monitors were combined to track time and distance as well as number of steps taken, route travelled via GPS, heart rate, speed, calories burned and even what type of activity. Of course, tracker data is synced with a smartphone for optimal analysis.



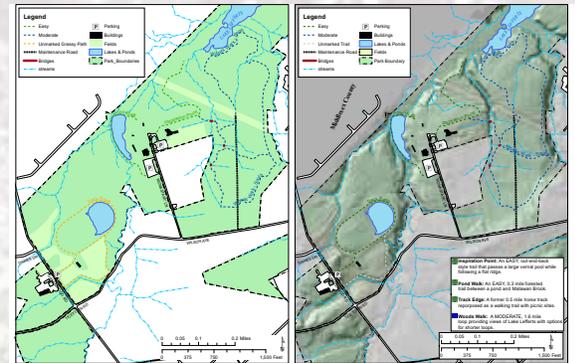
Many race participants now wear some kind of tracker.

Eventually, wearables fused with the smartphone into a third, new device, the smartwatch. Some athletes have switched over, others still wear a tracker for fitness and carry their cell phone for other uses like texting and music.

Mapping Imagery, Drones & Satellites

GIS Mapping (geographical information systems), aerial/drone and satellite imagery have also improved during the last decade, and our Park System information is incorporating these advances. We introduced a trail map app for smartphones in 2012 (via software company Esri). This free, downloadable app can pinpoint location and guide visitors along the trails so they don't get lost.

The Park System also introduced story map apps using this same Esri technology in 2018, providing the first **digital walking tour** of Deep Cut Gardens. In 2019, this newsletter published the Park System's first **custom elevation map** of Monmouth County to illustrate the highest elevations in the parks. This enhanced geographic capability is also driving a re-design of park maps beginning in 2020. Our first outdoor kiosk map with hillshade imagery will be installed at Freneau Woods Park in Aberdeen this summer.



Old vs. New "hillshade" map (in development) will help visitors see park elevations.



Drone photos provide previously unavailable views of parkland and features. (Thompson Park)



The "Rec-ade" 2010-2020

Pickleball, a modified kind of tennis game, emerged as a popular activity among the 50+ crowd, with leagues beginning on the indoor courts at Fort Monmouth Rec Center in 2015. To meet the growing need, Thompson Park painted lines onto the tennis courts to accommodate pickleball play in 2015, Fort Monmouth did the same on the outdoor sport court in 2016. In 2019, Dorbrook Recreation Area converted its roller hockey rink for shared pickleball time, each Sunday-Wednesday.

The first instance of **paddleboarding** in the parks is thought to be a demo held at Turkey Swamp Park Outdoor Expo in the early 2010s. Within the next few years, programs were available at the Manasquan Reservoir and Swimming River Park. (NOTE: Paddleboarding is permitted in the parks *only* as part of a program.)



Staycations also emerged during the last decade as people began looking for less expensive vacation alternatives. The county parks, open seven days a week with free admission, free parking, and a variety of free/low cost recreation options, emerged as a popular and convenient vacation choice for people on a budget.

Each year for the last decade, more than 1,200 dedicated volunteers provided over 25,000 hours of service help out in the parks. In addition to staffing events and programs, they created a new **Beach Nesting Bird Monitor Program** (2010) to track progress of the endangered Piping Plover and more recently the Purple Martin (2019).



Volunteers also helped plant and cultivate new **Pollinator Gardens** at the Manasquan Reservoir (2014) and Huber Woods Environmental Center (2018) in response to the declining number of bees and butterflies noted this decade. Many volunteers also received specialized training and spent thousands of hours building and maintaining park trails. This was especially critical after Superstorm Sandy, when volunteers provided a rapid and detailed trail assessment, and participated in multiple clean-up projects throughout the parks.



Our Park Environment

With **milder winters**, we lost some activities (sleigh rides at Longstreet Farm) but gained other new ones. Winter Golf started in the mid/late 2000s and expanded this decade with the addition of Charleston Springs Golf Course. Our first Polar Bear Golf Tourney (pictured) was offered in 2015. Cross-Country Ski/Snowshoe Rentals at Thompson Park expanded as staff began grooming trails in 2011, and the program moved into its own Ski Hut in 2014. An outdoor winter event called WinterFest ran for a few years mid-decade (2015-2018), also at Thompson Park, but was discontinued due to unpredictable temperatures. A second sled hill, just for kids, opened at Wolf Hill Recreation Area (2010).



Insects and invasive plants have become a bigger problem and we are devoting more resources to their control. Treatment for the Emerald Ash Borer started in 2016 throughout the parks and Turkey Swamp Park fought off a Southern Pine Beetle invasion in 2018, with help from the NJDEP.* We currently spot-treat our specimen elms for Dutch Elm fungus, and are actively on the lookout for the newest tree threat, the Spotted Lanternfly. Throughout the parks, we are now tracking and treating dozens of invasive plants and insects.



Finally, this past decade, park staff have been responding to stronger and more frequent **storms that cause greater damage** to park property. Superstorm Sandy (2012) alone cost the Park System an estimated \$8 million. More severe storms and wind along the shore, combined with rising sea levels, required protective efforts at every level of government to help stabilize our coastal properties.

The Army Corp of Engineers installed overlapping **flood mitigation** measures (2014-2019) in the Bayshore, including levees and tide gates behind Monmouth Cove Marina. NJDEP replaced this 80+ year old bulkhead at the Fisherman's Cove in 2013 and the NJDOT* provided shoreline replenishment in 2017. At the county level, **shoreline stabilization** projects got underway, such as resiliency features along the HHT* in Atlantic Highlands (2017), a living shoreline at Claypit Creek (2017), dune construction at beach properties, bluff stabilization at Portland Place (2020) and stormwater management strategies throughout the parks.



REFERENCES: 1. <https://www.pewresearch.org/internet/fact-sheet/mobile/>

*NJDEP=NJ Dept. of Environmental Protection
NJDOT=NJ Dept. of Transportation (handles dredging, that sand was used for replenishment)
HHT=Henry Hudson Trail

CROSSING OVER: UTT Extended Into Ocean County

The nearly nine-mile Union Transportation Trail (UTT), completed in 2016, offers sweeping vistas of the fields and rural scenery of western Monmouth County. It is enjoyed by equestrians, hikers, walkers, joggers, and bicyclists. The next step is for continued connections into adjacent counties/municipalities.

The Union Transportation Trail was once the Pemberton & Hightstown Railroad, established by investors in 1864 to provide dairies and farms with better market access. It travelled through Upper Freehold Township, connecting with larger railroads at junctions in Burlington and Mercer County. Passenger service continued until 1931, freight services until 1977.

The Park System first identified the former Union Transportation Line right-of-way as a possible rail trail in the early 1990s, and by 1998 had leased the right-of-way from its owner, Jersey Central Power & Light Company.



After a decade of planning and construction that included new culverts, bridges, and road crossings as well as trail surfacing, the first two miles of the trail opened to the public in 2010. This section included an important remnant of the old railroad, rehabilitation of the historic wooden trestle bridge over Lahaway Creek. Miles 3 and 4 opened in 2011, miles 7 and 8 in 2015, and miles 5 and 6 (and Assunpink section) were completed in 2016.



Connecting Monmouth and Ocean

In 2019 after years of inquiries, the Park System, in cooperation with Monmouth and Ocean County Engineering Departments, completed a pedestrian underpass for UTT trail users to cross from Monmouth County into Ocean County underneath Rt. 537. This connection benefits residents of both counties and encourages other agencies to link trails across county lines.

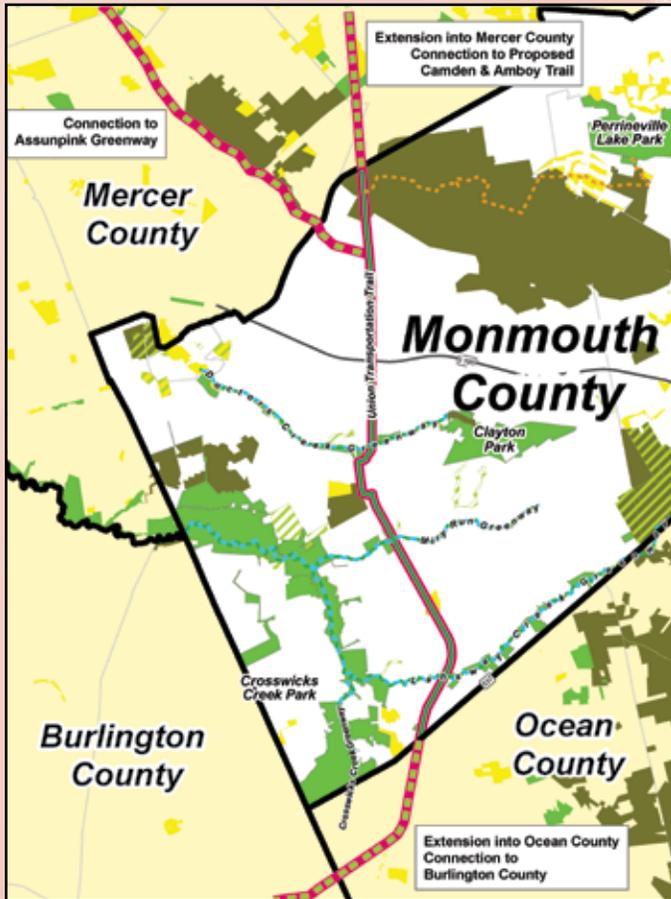
The process took five years from the original grant request to completion of the project. In the fall of 2016, the Park System received a \$700,000 grant from the New Jersey Transportation Planning Authority. This grant is federally funded, but the program to approve and disburse the fund is administered by the New Jersey Department of Transportation (NJDOT). Plans and specifications were then prepared and approved by NJDOT in early 2018.



The project was then sent out to bid, and the construction contract awarded in late 2018 for approximately \$2 million. The original \$700,000 grant was amended to \$2 million because of the higher than expected projected cost (bid amounts). The bids were analyzed to confirm they reflected current market costs before the grant was amended.



Construction began in January 2019 and was completed by December 2019. The physical structure was built using precast reinforced concrete sections which when placed together are similar to a box culvert. It required lane closures on the busy County Route 537. The underpass was constructed in two stages for traffic control. Half the road was closed and then replaced when the first half of the underpass was completed. The process was repeated for the remaining half. In addition to the underpass, the Union Transportation Trail surface was extended 600 feet to link Monmouth County's portion of the trail to the proposed Ocean County/Plumsted Township trail.



North, West and Beyond

After connecting south to Ocean County, a second project is underway to the north. West Windsor Township, in cooperation with Mercer County, has received William Penn Foundation grant funds to extend the UTT north into Mercer County. This northern extension could also link up to the proposed Camden & Amboy Trail, another rail-to-trail project, which would extend the trail even further. A northwest option is also possible via the Assunpink Greenway. Stay tuned...

COMPLETED PROJECTS, 2010-2020

New Parks (and 1 New Park Section)

The Park System added 2,901 acres during the last 10 years.

- **Wickatunk Recreation Area** (established in 2010) remains mostly quiet meadows; by 2017 the Spring Valley addition became a lovely outdoor wedding venue.
- **Claypit Creek** Section of Hartshorne Woods Park (opened in 2010) offers stunning views of and access to the Navesink River.
- **Big Brook Park** (opened in 2011). The YMCA Camp addition allowed a formal entrance off Rt. 520 and has expanded recreation.
- **Swimming River Greenway & Park** (established 2012) is a riverfront site undergoing renovation for boat rentals, fishing access, etc.
- **Fort Monmouth Rec Center** (established 2013) was renovated inside and out to offer a variety of activities.
- **Freneau Woods Park** (established 2014). Parcels for this new park were acquired in quick succession, including the former St. Basil Monastery.

New Trails

Twelve new trails--about 21 miles--were added to the county parks.

- Three trails (5 miles) opened at **Perrineville Lake Park** in 2010.
- The first two miles of the 9 mile **Union Transportation Trail (UTT)** opened in 2010; the trail was completed by 2016.
- **Crosswicks Creek Park** opened its first 1.5-mile Deep Run trail in 2014.
- A 0.6-mile trail connects **Claypit Creek** to Hartshorne Woods Park since 2016.
- A 1.5-mile (2.4K) cross-country trail launched at **Big Brook Park**, 2018.
- Four new trails (2.6 miles) opened at **Freneau Woods Park** in 2019.
- **Dorbrook's** 1.0-mile Egret Path along the reservoir opened in 2019.

New Facilities, Improvements & Renovations

- **New & Improved Bathrooms:** Henry Hudson Trail at Popamora Point (2010); Holmdel Park Shelter Building (2011) and Forest Edge (2015); the Huber Woods Environmental Center (2017); Rocky Point Section of Hartshorne Woods Park (2018).
- **New Playgrounds & Rec. Facilities:** Manasquan Reservoir Environmental Center floating dock and pontoon boat (2010); two new bridges completed the Thompson Park paved loop (2012); course renovations (2011) and 9-hole FootGolf course at Bel-Aire (2014) and an 18-hole FootGolf course at Pine Brook (2015); Disc Golf course at Wolf Hill (2015); renovated "street style" skateplex at Seven Presidents (2015); Bayshore Waterfront Park fishing pier lengthened to 500' (2015); outdoor sport court and commercial kitchen at Fort Monmouth (2016); zip-line/ropes course (2017), new cross-country trail (2018) and pool complex (2019) at Big Brook; pool house, Sprayground renovation (2016) and Challenger Place addition at Dorbrook (2019); a trail-extending underpass on the UTT (2019).
- **Expanded Parking Lots & Walkways:** Monmouth Cove Marina and Hominy Hill GC (2011); Holmdel Park Forest Edge (2015); Thompson Park Visitor Center (2016); Herbert Rd./UTT (2017); Deep Cut Gardens (2018); Rocky Point at Hartshorne Woods (2018).
- **New Buildings:** Imlaystown Elementary School acquired as Clayton Park Activity Center (2016); new maintenance buildings at East Freehold Showgrounds (2012) and Shark River Park (2019); the new Magnolia Visitor Center at Freneau Woods Park (2018); Holmes-Hendrickson House at Holmdel Park (2018).
- **Major Renovations:** Howell Park Golf Center (2010); Sunnyside Activity Center (2013); Holland Activity Center (2015) and historic barn (2019) at Tatum Park; Neuberger Lodge at Big Brook Park (2016); Portland Place (2016) and Battery Lewis (2018) at Hartshorne Woods; the Reptile House at Huber Woods (2019); and a new wing at the Creative Arts Center at Thompson Park (2019).

Seaside Gardening

Tanya Dinova, Park Ranger & Horticulturist

For centuries despite hurricanes and tornadoes, vegetation of a special kind, both woody and herbaceous, has endured the battering of wind and salt spray. Not even the shifting dunes of Cape Cod or those of the Jersey shore, or the seemingly endless stretches of the Florida coastline have eliminated the beach grass, bayberry, beach plum, dusty miller, beach pea, seaside aster, and others that contour our coast line.

Many of the earliest gardens planted along the Atlantic seaboard faced the ocean or some inlet from the sea. These little plots were filled with herbs, culinary and medicinal, and favorite flowers of the Old World. In many ways they provided a nostalgic link with gardens left behind across the sea. In describing this deeply rooted tradition, American Novelist Nathaniel Hawthorne (1804-1864) once wrote:

There is not a softer trait to be found in the character of those stern men than that they should have been sensible of those flower-roots clinging among the fibers of their rugged hearts, and felt the necessity of bringing them over sea, and making them hereditary in the new land.¹

Shore Planting Guidelines

Gardens of all kinds are possible at the shore, yet the space will tell the gardener what it wants to be. The first phase of a plot layout must consider ways to protect the seashore ecology as well as measures to ease the impact of harsh wind, salt and sun. Design what will be pleasing in a habitat of blue sky, sea and sand. If a beautiful view asks to be emphasized, plants can frame the view. There are five considerations most critical in deciding where and what to plant: soil, wind, sun, water, and salt spray.

1 Wind is the most difficult element. It can come from almost any direction, often violently, often unexpectedly, and often carrying salt spray with it. Not only can it physically blow plants and trees over, it can strip them of leaves in minutes and so desiccate a plant that it will never recover.

Most plants grow better when they are given some protection from the wind and intense sun. Wind direction is generally south to southwest during the summer months and northwest to northeast during the winter; therefore, a constructed windbreak of trees and shrubs becomes very important. Examples include evergreens such as Eastern red cedar; inkberry and American holly; and deciduous plants such as beach plum, black cherry, common wax myrtle and bayberry. Furthermore, you can find creative wind barriers in many local garden stores and incorporate decommissioned boats for example.

1. American note-books. Vol. 9. Houghton, Mifflin, 1888.



Seaside goldenrod and beach plum are resilient coastal species



At Seven Presidents Oceanfront Park, beach pea helps frame this shielded walkway.



Constructed windbreaks next to this patio and protected nooks along the walkways around Seven Presidents feature many common seaside plants. It's a good place to view this type of garden.

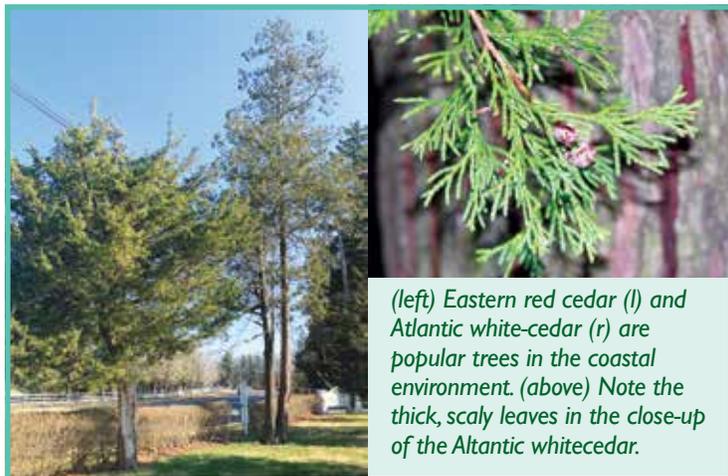
2 **Good garden soil** is made up of air, inorganic and organic matter as well as assorted bacteria, fungi and other microscopic creatures, which work together to determine the success of a garden. The basic rule “feed the soil and it will feed the plants” applies more to shore gardening than elsewhere. Texture, moisture-holding capacity, fertility and general make-up are of prime importance. Amendments of good topsoil, compost, or granular seaweed are essential for gardening success. Sand is easily tilled and holds air and warmth, but can easily burn and scorch plants in drought. Be sure to select plants that are healthy, adapted to the shore environment and drought resistant.



Prickly pear cactus, with its yellow flowers and unusual pink fruits, is commonly planted in sandy soil.

3 **Water** on the other hand is often in short supply especially during the hot summer months. The wind and sun cause rapid water evaporation. Windbreaks and screenings offer an essential protection against these elements. A barrier of shrubs, trees and groundcovers planted thickly provides natural obstacles to break these forces. Avoid gardening in areas of possible flooding from tidal waters. Although occasional saltwater flooding can deliver beneficial minerals to the soil, freshwater flushing should be done to remove saltwater invasion of the soil. Installing an automatic, drip watering system or using a soaker hose will add the needed moisture to promote good plant growth.

Plant these trees/shrubs as a windbreak to protect and shelter delicate plants from direct effect of salt spray: American holly, Eastern red cedar, Colorado blue spruce, Atlantic white-cedar, cherry laurel, and yew.



(left) Eastern red cedar (l) and Atlantic white-cedar (r) are popular trees in the coastal environment. (above) Note the thick, scaly leaves in the close-up of the Atlantic whitecedar.

4 In most cases **sun** is a good thing, but at the seashore, particularly augmented by reflections of sand and water, it can easily become too much of a good thing. Therefore, it is important to do your research in finding well-adapted plants. Those with small leathery, silvery or glossy leaves tend to shrug off the windy, sunny and salty onslaught.

5 Another consideration when seaside gardening is the **effect of the ocean on the seasons** themselves. Especially in climates such as New Jersey, because the water is cold in the spring, the wind coming off the water is also cold. That means the growing season will be two to three weeks behind areas inland. This in turn compacts the spring season, resulting in combinations of plants flowering together that you would not get inland. But as fall sets in, the water is still relatively warm and warms the wind, extending the growing season. Because of this you can have late-blooming perennials and shrubs flowering into November.

With the right plants in the right place, your coastal garden and its wildlife visitors can thrive. For example, Seven Presidents Oceanfront Park has management plans for sensitive plants such as seabeach knotweed and seabeach amaranth—in fact, it is home to the largest seabeach



*Thick shiny leaves of the endangered Seabeach amaranth (*Ammaranthus pummilus*) demonstrate its adaptation to harsh conditions on the beach.*

amaranth plant in the state. During summer and into fall, you can also see Monarch butterflies here, a species of concern after years of decline.



Besides the amazing oceanfront, the park is well known for its views and landscapes. Visitors enjoy the colorful displays of blooming seaside flowers, shrubs and trees. “We have a good amount of seaside goldenrod in our dunes and the prevalent dune grass is American beachgrass (*Ammophila breviligulata*),” says Park Manager Paul Bagdanov.

With resilient plants, our maritime regions may enjoy the same wealth of wildlife as the rest of the country. Coastal insects, birds and other creatures have adapted to the often harsh environment, and many are exclusive to this particular habitat.



Classic American beachgrass

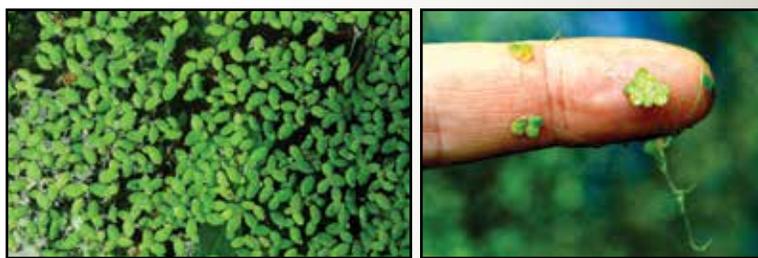
REFERENCES:

Cook, Roger, “Gardening by the Sea”, This Old House. Retrieved December, 2019
 Foley, Daniel J. “Gardening by the Sea, from Coast to Coast.” (1965).
 Hawthorne, Nathaniel. American note-books. Vol. 9. Houghton, Mifflin, 1888.
 Wells, B. W., and I. V. Shunk. “Salt Spray: An Important Factor in Coastal Ecology.” Bulletin of the Torrey Botanical Club, vol. 65, no. 7, 1938, pp. 485–492. JSTOR, www.jstor.org/stable/2480897

“FRESH OFF THE PRESS”

Duckweed Is A Superfood

A superfood is a nutrient-rich food considered to be especially beneficial for health and well-being. According to researchers, superfoods increase energy and vitality, regulate cholesterol and blood pressure and may help to prevent or fight cancer and other diseases (de Beukelaar et al., 2019). Meet the Duckweed genus Lemna, family Lemnaceae. This family of aquatic plants, also known as bayroot or watermeal, can be found floating atop still or slow-moving bodies of water.



Duckweed Photo Credit: wikicommons

What is Duckweed?

- Smallest flowering plants on Earth (Journey et al., 1991)
- Among fastest growing plants in the world (Ziegler et al., 2015)
- Family Lemnaceae, 4 genera, and over 40 species
- Free floating or submerged, found in still/slow flowing freshwater
- Common in lakes, ponds, canals, rice fields, ditches, even mud

To learn more meet Duckweed expert Dr. Eric Lam on May 17, 2020, 2pm at Deep Cut Gardens. Call 732-671-6050 for more information.

What Makes Duckweed a Superfood?

- Amino Acid Composition: Meets/exceeds World Health Organization recommendations, comparable to legumes
- Polyunsaturated Fats: 48-71% of fatty acid content
- Omega 6 to Omega 3 Ratio: 0.1 to 0.75 (FAO recommends <5)
- Phytosterol: 5-fold higher than most other plant oils (lowers cholesterol absorption)
- Antioxidants: High concentrations of lutein and zeaxanthin
- Mineral Composition: Presence of trace elements depends on nutrient medium (Appenroth, 2017)

The world's largest collection of duckweed specimens can be found at Rutgers University, where biologist Dr. Eric Lam is spearheading an investigation into the plant. Already a popular food in Southeast Asia, duckweed is a potent source of protein (40% of its dry weight). It also has the distinction of the fastest growing plant in the world. All this means that with a little work, duckweed could soon become a powerhouse crop. Dr. Lam and his team have implemented a precision farming approach to growing and harvesting duckweed. Check out their startup called **PlanetDuckweed** (<https://www.planetduckweed.com>) which aims to spur collaboration and draw investor interest.

PROGRAMS & UPCOMING EVENTS...



NEW! Catnip, Cat Gardens and Greens

Make your cat happy! Bring home catnip and plant a cat garden, we will show you how. One Session, \$7.50 Per Person. Pre-registration required online or by phone 732-842-4000, ext. 1.

Deep Cut Gardens
Sunday, April 5
11:30am-12:30pm

Thursday, April 16, 5:30-6:30pm
Thursday, May 7, 10:30-11:30am

NEW! Garden Meditation Group

Mindfulness meditation in the garden is a wonderful way to deepen your practice and connect with others. Take this opportunity to create space and restore balance. Join us every other Friday morning in May. *Drop-in program (no registration required).* \$3 Per Person (cash or check only, please)
Fridays, May 1, 15 and 29, 7-8am



Also, **National Garden Meditation Day** is observed annually on May 3. It is a time to forget about everything else, take some time for yourself to relax and meditate. Join us at Deep Cut Gardens for this special, unique and healing experience. We will be waiting for you. *Drop-in program (no registration required).* \$5 Per Person (cash or check only, please)
Sunday, May 3, 7-8am

IT'S TIME TO...

April ✓

- Compost /manure and mulch planting beds.
- Prune roses when the new shoot growth begins.
- Divide perennials with multiple stems, such as coreopsis, bleeding heart, black-eyed susan, hostas and lilies.
- Plant cold hardy annuals such as pansies, violas and alyssum which thrive from now until June's heat arrives.
- Apply granular, time-release fertilizer to the soil of potted plants and flower beds, avoiding contact with leaves.
- Start hot weather annual and perennial seeds indoors.
- Apply crabgrass preventer without fertilizer to lawns.

May ✓

- After flowering is complete, prune spring-flowering shrubs such as azaleas, rhododendron and forsythia.
- Mid-month, apply weed and feed to lawns.
- When nights are above 60 °F, transplant warm weather vegetables and flowers started indoors into the gardens.
- Direct sow seeds outdoors for warm-weather vegetables and flowers, such as basil, beans, cosmos and coreopsis.

June ✓

- Continue planting warm-weather flowers, vegetables and herbs.
- Watch for garden pests and act promptly when they begin showing up.
- Begin monitoring lawns for evidence of grubs.

"Blossom by blossom the Spring begins"
 —A.C. Swinburne



Tulips in April



Azalea in May



Roses in June

FREE! Great Spring Perennial Plant Swap

Saturday, May 2, Tatum Park

Red Hill Activity Center

Plant Drop-Off: 8:30-10am

Plant Selection: 10-11:30am

This plant exchange is fun, free and easy! Bring plants in one-quart, one-gallon or two-gallon containers to exchange for plants in like sizes. Please label all plants. Herb and vegetable seedlings may also be exchanged. Please check our website for plants that will not be accepted. For more information call 732-671-6050.



FREE! Deep Cut Gardens Open House

Saturday, June 6, 10am-2pm

2020 Volunteer Opportunities

Docents, Ambassador and Garden Asst. Open House

Wednesday, April 1,
10am-12pm

Join us for a tour of the gardens and learn about indoor and outdoor volunteer options. Work with people or plants, or both! Volunteer Training open to ages 18 & older.



Plant Swap Volunteers

Drop-in Days

Stop in to assist in the gardens and work with our staff. New volunteers are always welcome. Call 732-671-6050 for information. Please bring work gloves.

Wednesdays, 9am-12pm (starting April 22)

CORNER

NATURE

Building A Nature Tent For The Fair: A How-To



Paul Mandala, Park Naturalist

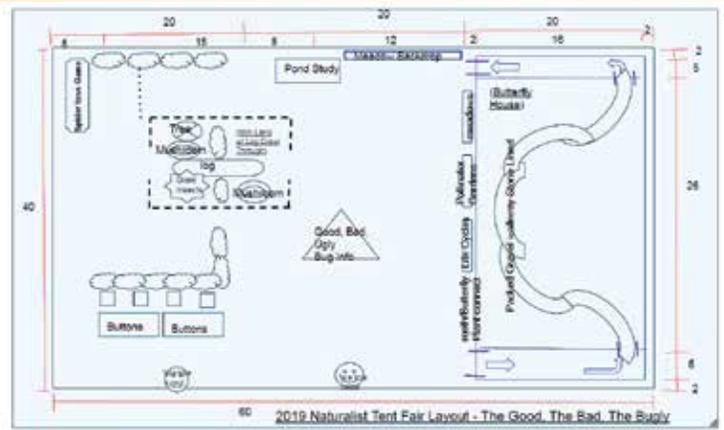
Last year, the Park System celebrated its 45th Monmouth County Fair and since 2003 fair goers have been enjoying a nature-themed tent. Last year's theme "The Good, The Bad, & The Bugly" paid tribute to an overlooked keystone to our ecosystem, insects.



Inspiration came from a recent *New York Times* article, "The Insect Apocalypse Is Here," which brought to light the plight of vanishing insects all around us. According to the article, US scientists found the population of Monarch butterflies fell by 90% in the last 20 years...the rusty-patched bumblebee dropped by 87% over the same period.¹ The other inspiration came from the movie, "Honey I Shrank the Kids." To this end, staffers created a relevant, fun and educational tent all ages could enjoy and learn from.

Pollinators Are Critical to Food Supply

One spotlight of the tent was our native pollinators: butterflies, moths, bees, wasps, beetles and flies. Insect-pollinated fruits and vegetables provide most of the vitamins and minerals we need in our diet; the US and Canada alone grow more than 100 different crop plants that need pollinators.² Without bees, there would be no apples, pumpkins or strawberries, for instance.



A layout for telling the Pollinator Story: The 40x60' tent had space for seven activities

Planning began months in advance so that everything could be in place for the week-long summer event. Staff created seven colorful, attractive and engaging activities to draw visitors in and keep them learning:

- 1) spider-toss game
- 2) insect button-making activity
- 3) educational posters
- 4) pond study
- 5) butterfly house
- 6) "mini world" with crawl tunnel
- 7) Insect photo-op

Building these elements was no small task. It took a dozen staffers and volunteers months to bring these imagined ideas to life. Here is how they did it.

Mini-Land of Giant Insects

Larger-than-life insect sculptures filled the model "mini land" bug environment, next to a replica log crawl tunnel. This allowed visitors to feel as if they were the same size as the insects around them, and perhaps also feel as though they were part of the ecosystem. The frames for these giant insect sculptures were constructed with wire mesh, hand woven together. There were: 3 ft. butterflies, a 4 ft. dragonfly, and a 7 ft. praying mantis! The insects were brought to life with the talents and knowledge of staff and volunteers using papier-mache. Each creature was covered with multiple layers, then painted.



Building the Scene: This wire sculpture of a dragonfly was covered with layers of papier-mache.



What's all the buzz about? A giant mantis lives just inside the mini-land.



A Bug's Eye View: Young visitors experience life in the forest from a different perspective in the log crawl.

There was also an army of “smaller” insects (mostly ants and beetles) as well as some mushrooms to complete the mini-land. These segmented insects were crafted using balloons to create each body section (head, abdomen, and thorax), then wrapped in papier-mache. Giant mushrooms were crafted from trash-can lids, papier-mached, then stapled to old traffic cones! Finally, the bark of the mock fallen tree tunnel was textured with layers of spray foam, and painted with a mix of colors to create the most natural look.



Giant ants and lady bugs crawl atop the mini-land log.

Getting to Know Butterflies

The butterfly house allowed visitors an up-close and personal look at live native butterflies and moths, with examples of the native flowering plants that attract them. The house structure was built out of PVC pipe, then covered with a shade cloth. This allowed sun and air to come through, but kept butterflies inside and garden predators—such as praying mantis, wasps and spiders—out. Special entrance/exit rooms also helped contain the butterflies, while the overall exhibit size and path width ensured that butterflies and visitors had enough room to interact and flow.



A close-up of the shade cloth.



A view inside the butterfly house.



Taking a moment to really study the monarch.

Illustrating A Bug's Life

A pond study was set up to illustrate the early aquatic life-cycle of many common insects such as damselflies and dragonflies. The spider-toss game (bottom) invited participants to aim insect-shaped bean bags at holes of the spider's web to mimic predator-prey interactions and show how insects are a vital part of the food chain. As the article points out, “by eating and being eaten, insects turn plants into protein and power the growth of all the uncountable species — including freshwater fish and a majority of birds — that rely on them for food...”¹



Naturalist-guided pond study highlights the insect life cycle.

Button-making is a traditional Fair tent activity, and this year's base artwork had insect-themed flair. Finally, a large and attractive mural was painted with help from local artists to attract people to visit the tent. The mural (previous page) showed staffer's favorite insects, and allowed visitors the opportunity to get a memory of 2019 Monmouth County Fair. They had a choice of a beautiful swallowtail butterfly, a stunning IO moth, hungry Monarch caterpillar, a posing praying mantis, or a ferocious stag beetle.



What will be under next year's tent? Visit the 2020 Monmouth County Fair to find out. Hope to see you then!

REFERENCES: 1. Jarvis, Brooke. (2018). The Insect Apocalypse Is Here. <https://www.nytimes.com/2018/11/27/magazine/insect-apocalypse.html>
2. Xerces society. (2011). Attracting Native Pollinators. Boston: Storey Publishing.



Celebrating 60 Years (1960 - 2020)

GREEN HERITAGE

805 Newman Springs Road, Lincroft, NJ 07738-1695

Volume 54, No. 1 Spring 2020

G20086 2/20

IF YOU PLANT IT, THEY WILL COME

It didn't take long for this tiny milkweed plant to attract its first customer, a Monarch caterpillar.

In this issue:

The Park System Turns 60
A Rail-Trail "Crosses Over"
Seaside Gardening, and
How we prepare our Nature
Tent for the Fair.

New Pollinator Garden at Huber Woods Park



Visit www.MonmouthCountyParks.com