



MONMOUTH COUNTY PARK SYSTEM GREEN HERITAGE

The Newsletter of Monmouth County's Open Space, Parks & Recreation Agency

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KAYAK MANIA!

Maybe it's all the new, high tech and light-weight equipment. Maybe it's the many water bodies nearby. Whatever the reason, kayaking has become one of the most popular outdoor activities in the parks. No wonder, take a look at some of the beautiful scenery you can experience firsthand from a kayak.

Getting Started: A Great Form of Exercise

Perhaps you've never tried kayaking, and have just seen it from afar? Please don't let that smooth ride seen from a distance fool you. Paddling can be hard work, especially on the upper body. It takes some practice, even in the calmest body of water, and can be downright exhausting in a strong wind or against the current. But if you are up for some moderately strenuous activity, this is truly one of the best ways to enjoy the outdoors.



Fisherman's Cove Conservation Area



Kayaking can be enjoyed alone...or tandem, with a friend or family member.



Racers compete in the paddle portion of the Timberbrook Triathlon, held each October at the Manasquan Reservoir, Howell.

Since you have to rely on your own skill and wits when out on the water, it's strongly recommended that new paddlers get some instruction first. Skills that everyone should have BEFORE getting out on the water include knowing how to:

- assess weather conditions
- paddle
- get in and out of the water
- recover after capsizing (depends on kayak type).

Basic practice with water currents, knowledge of tides (so you don't get stuck somewhere), and how to navigate obstacles are also critical skills.

Boater Safety

You may feel like nothing can harm you on our calm local waterways, but the right combination of risk factors could be dangerous if you are not prepared.

- It is best to boat with a buddy, but if you go alone, please tell someone where you are going, and when you are expected back.
- Wear a class III or higher life jacket.
- Watch the tides and currents.
- Wear a whistle.



It's good to practice maneuvering your kayak—putting it in and taking it out of the water, or carrying it over shallow spots.



Shallow parts of the Manasquan River Greenway allow you manage the risk of capsizing.

The Park System offers kayak classes and trips to help you get started. Our seasonal **Program Directory** contains a complete listing. Call 732-842-4000, ext. 4312, to have a free copy mailed to you, or view online monmouthcountyparks.com.



These paddlers get basic instruction from a park guide first, before launching on a nature tour of the Navesink River.



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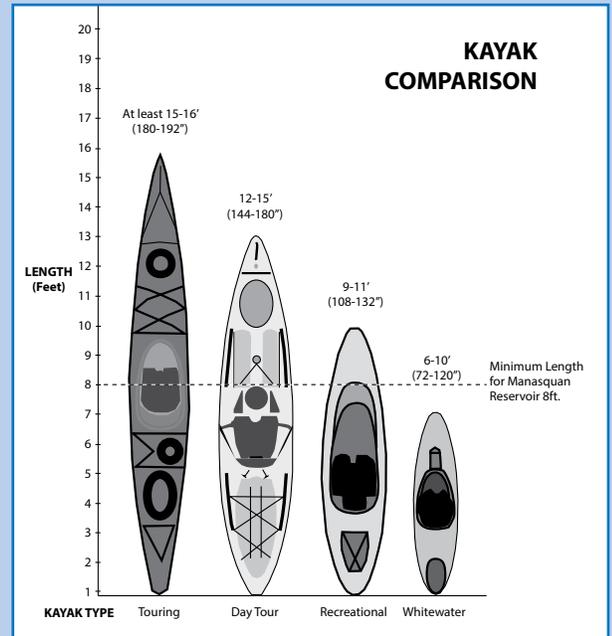
Kayak Types and Trips

Once the basic paddle skills are mastered, some people begin taking longer or more adventurous trips while others prefer short trips, close to home. The type of kayak trip you would like to take will help you figure out what type of kayak to use.



Even for the same race, people bring (or borrow from the parks) a wide array of kayak types.

In fact, there are now a dizzying number of options for even the most basic kayak design. There is length and shape and seat type (sit inside or Sit-On-Top). There is also the weight and construction material (wood, fiberglass, light-weight plastic, even inflatable—and therefore very portable—canvas), and of course specialized design/comfort features such as cup holders, padded seats, and wheels on the bottom for transport. There are even alternate mobility choices such as foot-paddles or motors (although you still need a hand paddle to steer).



Very broadly speaking (and sticking to single person models), there are four basic kayak types, according to Park System Recreation Program Coordinator and boating specialist Ryan Kimble. **Touring or Sea kayaks (15' or longer)** are designed for long distance trips on the water. The long, sleek design helps stabilize the boat and moves through the water more easily, so paddlers don't tire too quickly. **Day Tour kayaks (12-15')** have a size/shape that's somewhat more manageable. These are for people who would be comfortable calling themselves "paddlers." **Recreational kayaks (9-11')** appeal to 'weekend warriors' who go on shorter trips. These have a more bare bones design (minimal comfort features) and the shorter length is easier to maneuver and transport. At the shortest (and often lightest) end of the spectrum are the most maneuverable **Whitewater or Surf kayaks (6-10')** for trips into rougher 'white' water.

The Season is Not Over Yet!

Kayak season usually runs from mid-late May through October, depending on the weather. Outside that window, cold water temperatures and wind are likely to make it an unpleasant experience for most. Of course, many die-hard paddlers own a special 'dry suit' that blocks the wind and protects against cold water, allowing them to enjoy a longer season.

BYOKayak—FREE!

Park visitors are often surprised to learn you can **bring your own kayak and put it in the water for free** at more than a dozen park sites. The only park that charges a launch fee is the Manasquan Reservoir in Howell.

Kayak Rentals Available Until October 31 (weather permitting)

The very still, 17-acre lake at Turkey Swamp Park is great for beginners (below) while the larger 777-acre Manasquan Reservoir offers a bit of wind (feeling of current) and obstacles to test your skills. Please visit monmouthcountyparks.com for rates.



FREE Launch Sites to Major Water Bodies

- Manasquan River Access (coastal) at Fisherman's Cove Conservation Area, Manasquan, *pictured on p. 1*
- Raritan Bay Access at Bayshore Waterfront Park, Port Monmouth
- Sandy Hook Bay Access at Popamora Point Section of Henry Hudson Trail, *pictured right*
- Atlantic Ocean access at Seven Presidents Oceanfront Park (beach & parking fees charged during the summer season)
- Shark River Access at Shark River Park, Brighton Rd.

WARNING: TIDAL AREA*

***You must know the tide activity/tide schedule at this site. If the tide goes out while you are out, you may not be able to kayak back to your starting point, the area will just be mud.**



Access Sandy Hook Bay from the beach at Popamora Point.

FREE Launch Sites at Small Lakes—Great for Beginners!

- 21-acre Marlu Lake at Thompson Park, Lincroft
- 17-acre lake at Turkey Swamp Park, Freehold
- 16-acre lake at Perrineville Lake Park, Millstone
–all three pictured right



A break in the reeds (bottom left) shows the boat launch area at Perrineville Lake.



Teams race each other at the annual Funtathalon, held each May at Thompson Park's Marlu Lake.

FREE Launch Sites to Rivers/Creeks—For a Challenge (water levels vary)

- Manasquan River Greenway (inland), *pictured on p. 1*
- Crosswicks Creek Greenway, *pictured below*



Kayak the calm lake at Turkey Swamp Park.



Crosswicks Creek (pictured) and Manasquan River have many portages, places where you have to get out and carry your boat due to downed trees and obstructions or shallow water.

GREEN WITHIN GREEN: SUSTAINABILITY IN THE PARKS

You have probably seen or read the word *sustainable* many times before today, in dozens of different contexts: sustainable development, sustainable seafood, sustainable lumber, sustainable agriculture, sustainable energy, sustainable design...the list goes on and on. In the broadest sense, sustainability refers to systems that can be maintained for a long time into the future and, as an agency devoted to land preservation, this is a critical priority for the parks.

Our role is to find the most effective ways to develop and manage park resources with the least impact to the environment, while being cost-effective.

The Park System actively incorporates sustainability concepts to develop and manage park resources with the least impact to the environment.

To do this, the Park System has been developing formal programs to incorporate sustainability concepts into the design and operation of park facilities and infrastructure. Check out some of our efforts to date.

Conserving Energy

Geothermal heating and cooling systems at the Charleston Springs Golf Course Golf Center and the Manasquan Reservoir Environmental Center use the earth as a heat source in the winter and a heat sink in the summer. Instead of relying on electricity, fuel oil or natural gas, a system of pumps and underground piping captures heat in the winter and dissipates heat in the summer to help regulate temperature in the building.

The Park System now has solar panels at five facilities. The largest is at Sunnyside Equestrian Center, installed in 2010. Thompson Park had two systems installed in 2011 at Central Supply and the Creative Arts Center; the Manasquan Reservoir Environmental Center added solar panels in 2012; and the maintenance building at East Freehold Showgrounds in 2013. Total annual production from these systems is about 181 million Watt-hours of energy per year, which translates into \$60,000 in savings on the Park System electric bill through the spring of 2013.

More reductions have been achieved with energy audits that led to the replacement of old windows, furnaces and boilers as well as the addition of weather stripping and insulation and high efficiency lighting where feasible. Electric powered carts and compact vehicle alternatives have also saved energy.



The club house at Charleston Springs Golf Course in Millstone runs on a geothermal system.



The Park System's 5th set of solar panels were installed on the maintenance building at East Freehold Showgrounds in 2012.



The Park System is deeply committed to greener practices and has tapped staff from park and golf course operations, construction, and management to investigate and implement green product use in the most cost effective way possible.



The parks continue to use smaller, more fuel efficient pick up trucks in their fleet.

Buying Green

The parks have also **reduced the use of toxic chemicals** by testing then purchasing alternatives with fewer toxic ingredients (PVC, chlorine, formaldehyde) and more recycled content, but that still perform well. We now use low or no VOC (volatile organic compounds) paint products; office supplies (paper primarily) have a high percentage of **recycled material**; and all appliances now meet Energy Star standards.



From recycled paper and plastic to less toxic cleaning agents to more energy efficient light bulbs, the parks have been steadily switching over to greener products.

Conserving Water

Last fall, this newsletter discussed exactly how parklands protect water quality. Undeveloped land **slows rainwater** as it enters streams and rivers minimizing flooding, **filters sediment** which clarifies the water, and **filters impurities** from ground water that we tap for our water supply.

While protection of open land works in the aggregate to improve water quality across the region, the Park System also employs specific methods to treat stormwater runoff at our facilities. We've installed **biofiltration systems** at the East Freehold Showgrounds, Longstreet Farm and Holmdel Park (in development). Rainwater runoff that discharges directly from parking lots has been redirected to areas with a special mix of soils and plants that capture pollutants before they enter the groundwater.

The parks also actively protect water quality by:

- acquiring/maintaining natural lands along water bodies (Glendola and Manasquan Reservoirs; Manasquan, Shark and Swimming Rivers; Crosswicks Creek)
- stabilizing stream channels from erosion through engineering projects (Ramanessin Brook); and
- restoring buffer habitat around water bodies, removing invasive species and planting native shoreline and uplands plants (Thompson Park, Holmdel Park and the Charleston Springs Golf Course).



Vegetative buffer around ponds at Charleston Springs and Holmdel Park.



Water is also conserved with high efficiency fixtures, automatic water shut-off sensing devices, and leak detection and repair.

The Park System is constantly evaluating grass fields for low-mow or no-mow management. Look around more closely on your next visit to Thompson Park. As you are driving in or walking the trails you may notice that 173 former field acres are now meadows.



Water is conserved with fixtures that have automatic water shut-off sensing devices (solar powered, like the one pictured).



One of the most noticeable low-mow fields at Thompson Park's entrance. We've learned that cutting this regular grass field just a few times into June keeps it from flopping over in the spring rains. It looks better and remains upright as it grows into this shaped, tan-colored meadow.



Golf courses such as Charleston Springs, Howell Park and Bel-Aire capture and use raw surface runoff for irrigation reducing the need for ground or potable water. Staff are also currently studying the use of organic fertilizers.

Sustainable Design/Construction of Buildings & Facilities

The Park System is also investigating two sets of green standards, including the **Leadership in Energy and Environmental Design (LEED)**, developed by the U.S. Green Building Council (USGBC), to see if they can be achieved without significant project cost increases.

Finally, the Park System regularly **salvages re-usable materials** when demolishing buildings, renovates rather than rebuilds older structures, and **sources sustainable new construction materials** when feasible. From re-using wood trim on construction projects to using playground surfacing made from ground-up tires, staff are always on the lookout for cost-effective green alternatives.

LET'S TALK TULIPS

Diane Allen, Park System Horticulturalist

Daffodils may be the harbinger of spring, but when the tulips bloom it's a sign that warm weather has truly arrived. Tulips bring to the garden an amazing array of colors from pure white to the deepest, almost black-purple. Shapes range from simple crocus-like flowers to forms so full you might mistake them for a peony.



Is there anything more vibrant than a garden of tulips?

Like the crocus, the tulip is in the order liliales, an order of plants including the amaryllis, lily and iris, among many others.

Both the crocus and tulip come from mountainous regions with cool/cold winters, abundant autumn and spring precipitation, and dry summers. They survive the harsh seasons by storing their energy for future growth in a compact little package underground, called a bulb.

Actually, there is more than just energy stored in the modest-looking bulb.

A tulip bulb has a fully formed, tiny flower inside just waiting for its cue to awaken and grow.

There is a fully formed, tiny flower inside, awaiting the cue to awaken and grow.

Tulip History: From High Art to a Crashed Economy

Archaeological findings tell us that tulips were cultivated in Asia Minor as early as 500 B.C. and were highly prized, particularly among the Ottomans, for whom they became a symbol.¹ The Europeans discovered them in the mid-late 1500s, and breeding a wide array of beautiful and unusual varieties became a high art, which the Dutch carried even further.



Tulips come in a variety of colors and forms.

Captivated by this exquisite new flower, by the early 1600s the Dutch began breeding and selecting for the most dramatic varieties. Since tulips do not grow true from seed, they must be propagated vegetatively (from offsets, see next article), a much slower process. The slow reproduction is what made them so precious. Furthermore, the most exciting and highly prized were the “broken” tulips – those with a flame or streaks of contrasting color. Unbeknownst at the time, these “breaks” were caused by a virus, which decreased production of offsets, leading to shorter supply and higher speculative prices.

As tulips became a symbol of status and wealth, a frenzy of speculation ensued. At the height of this frenzy, one tulip bulb sold for an amount that could have purchased a grand canal house in Amsterdam – approximately \$10-15 million by today's standards. With outstanding tulip deals equal to more than six times the total amount of money in circulation in Holland at the time, the failure of the prized bulbs to bring asking prices at an auction in the winter of 1637 was devastating.² The market crashed, fortunes were

lost, and people ruined. The tulip, for a brief time one of the most valuable commodities in the world, became a symbol of human folly.

The Color-Code of Tulips

In the language of flowers, the tulip symbolizes a perfect and true love, fame, passion, and romance. The tulip is also the 11th wedding anniversary flower (and unofficially the emblem of Holland and the national flower of Iran and Turkey).



Pink Tulips represent happiness and confidence.

- Red = true love
- Yellow = in earlier times symbolized hopeless love, but today conveys cheerful thoughts
- Orange = warmth, happiness and fascination
- White = request for forgiveness
- Pink = happiness and confidence
- Purple = associated with royalty

More on the Tulip Virus

The cause of the variegation in “broken” tulips was not discovered until the early 20th century with the development of powerful microscopes. Although tulip varieties with these patterns are available today, they are the result of stable genetic mutation and not viral infection. There are about 12 viruses that can affect tulips, causing symptoms such as brown dead streaks in the leaves or stems, mottled leaves, sunken brown spots, arcs or rings on the bulbs, or distorted or stunted plants.



In the past, the tulip's color streaks were caused by a virus, today they are a stable genetic mutation.

Since viruses cannot travel on their own, they require a vector, another organism, to spread to another plant. Aphids and other insects, soil-inhabiting nematodes, fungal root pathogens, mites, and mechanical transmission (contaminated pruning tools) are all vectors of tulip viruses. There are no chemical controls, so defense is the best strategy. Make sure tulip bulbs come from a reputable source, remove and destroy any affected plants to prevent spread, and keep gardening tools clean.

The Tulip Display at Deep Cut Gardens

Visitors often ask how we create Deep Cut's annual tulip display. On one early-November day, three people plant the 1,400-1,500 bulbs with the aid of a gas-powered mini auger and large auger bit to drill the holes. One vibrant display from 2013 (pictured far left) was a blend of Darwin hybrid tulips. This year's cool spring produced a beautiful and long-lasting display. Darwin hybrids often re-bloom, so with the aid of our garden volunteers, the bulbs were dug up after flowering and planted in other flower beds.



The Deep Cut tulip display in 2012.

There are other, lesser known bulb displays at Deep Cut. In the Rockery, around Mt. Vesuvius is a planting of dwarf pink tulip 'Lilac Wonder' and multiflowered daffodil 'Hawera.' These 8" flowers were planted two years ago and return each spring. Tucked here and there throughout the gardens, the observant visitor will find other delicate flowers of the species tulip.



Tulips in the greenhouse.

References:

1. *Tulip, 70 Stunning Varieties of the World's Favorite Flower*, 2002, Lil Dobbs, 2003. St. Martin's Press.
2. *The Botany of Desire, A Plant's Eye View of the World*, Michael Pollan, from film documentary based on his book by the same title published in 2001.
3. *The Bulb Expert*, 1995, Dr. D. G. Hessayon.

PLANTING & CARING FOR TULIP BULBS

Tulip bulbs are best planted no earlier than November to avoid frost damage. If December rolls around and you discover that bag of bulbs you overlooked while in the midst of seasonal activities, don't throw them away.

If you can, dig the soil, plant them and give them a chance. Although it is better if they have a chance to develop some roots before winter's freeze sets in, I have had success with winter-planted bulbs.

Tulips require a well-drained soil. It need not be too rich, as long as the plants have adequate minerals and sunlight. For best display, plant them in groups or waves.



Examples of "wave" planting of tulips.

Always follow depth and spacing recommendations for the variety you have purchased.

Protecting & Rescuing Tulip Bulbs

If you have had trouble with critters eating or stealing your bulbs, try sprinkling chicken grit or crushed gravel in with the bulbs or on top of them, or plant them in a purchased bulb cage or a home-made one fashioned of chicken wire - it will protect the bulbs without interfering with growth or drainage.

About those forced bulbs you receive or buy in early spring - the books say they will not re-bloom. Again, I give these a chance by feeding and watering as the foliage is maturing, then put them into a little vacant spot in my garden. Admittedly, said "vacant spots" are getting more difficult to find, but there is always room for one more, and the pop of color as they emerge the following spring is a pleasant, if not unexpected, surprise.

Why Don't My Tulips Bloom Again?

First, make sure you have the right kind; most catalogs will indicate which are good as perennials. After flowering, the plant will endeavor to develop seeds (following the flower on the stalk) and/or bulblets or "offsets" ("baby" bulbs that form underground near the base of the "mother" bulb). Both will deprive the plant of the strength it needs to produce a large flower for the next season. Since tulip seeds don't breed true, you may as well remove the flower stalks. If you wish, you can dig up the bulbs, remove any bulblets, then store in a cool, dark place to replant next autumn.

As long as you have allowed the foliage to ripen fully before removing it, with good drainage to prevent rot, sufficient sun and nutrients, and a minimum of 6-8 weeks at 40-45° F, your tulips should provide several seasons of bloom.



A tulip bulb.

Photography Exhibit – Off the Beaten Path at Deep Cut Gardens

Call for Entries: October 22 – November 22, 2013

(exhibition runs in January)

View the world through a different lens. This year's photo exhibit showcases the hidden treasures of Deep Cut Gardens. Reveal the hidden world of this beautiful park with photographs of the lesser-known aspects, or photos of the familiar taken from a different perspective.

Open to photographers age 18 and up. **\$10 Registration Fee.** Rules and entry form available at www.monmouthcountyparks.com (click on Deep Cut Gardens page).

Opening Reception 1:00-3:00pm, Saturday, January 4 will offer light, warming refreshments and an opportunity to meet and speak with the photographers.

EXHIBITION DATES: Mondays through Saturdays, 10:00am-3:00pm, January 6-31. FREE

Enjoy the beauty of Deep Cut Gardens as captured by some of our many visiting photographers.

Weather permitting, take a stroll through the gardens and discover textures and colors revealed by the starkness of winter. There is no fee for the Opening Reception, but please call 732-671-6050 to RSVP, or for any further information.



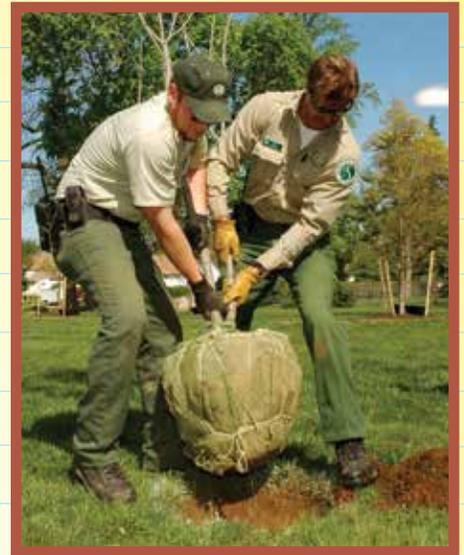
This photo was take from 'inside' the Japanese Maple at Deep Cut Gardens.

It's TIME TO ...



October ✓

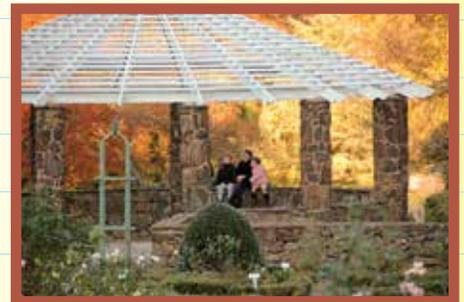
- Plant grass seed until mid-month. Apply low-nitrogen lawn fertilizer if not done this fall.
- Prepare new beds for spring planting: have soil tested for fertility and pH, then work in amendments according to recommendations.
- If houseplants are still outdoors, place them in partial shade to begin to acclimate them to indoor conditions and clean thoroughly before bringing indoors.
- Plant new trees and shrubs now so they can develop some new roots before soil temperatures drop; mulch and water well.
- Lift corms and bulbs of begonia, caladium, calla and gladiola; lift dahlia and canna after blackened by frost.
- Clean up gardens and discard foliage of any disease-prone perennials, leaving some disease-free specimens that provide winter interest and seeds for the birds.
- This is a good time to be sure plants are labeled.
- Plant pansies, ornamental cabbages for fall color, bulbs for next spring.
- Poly-spun frost cloth or a sheet will protect the last fruits in the garden from a light frost.
- Plant garlic cloves about 4-6" apart in a rich sandy loam.
- Water lawns, beds, shrubs and trees only if needed to ensure they go into winter well hydrated.
- An application of compost or composted manure over beds will improve the soil and plant vigor next growing season.



Fall is the best time to plant most trees and shrubs.

November ✓

- Apply mulch or leaf mold to gardens after the first hard frost.
- Turn your compost pile after frost hits to deter over-wintering rodents.
- Do a final clean-up of beds and lawns. Set aside interesting pods to incorporate in seasonal décor.
- Plant any remaining bulbs.
- Clean and store tools until spring. Store fertilizers and other materials where granulars will stay dry and liquids frost-free.
- Pot amaryllis bulbs every few weeks beginning mid-month for blooms through the winter.



Trees ablaze with autumn color make a wonderful backdrop for a family photo at the Deep Cut Gardens pergola.

December ✓

- Apply a winter mulch of shredded oak leaves around azaleas, rhododendrons, pieris and other acid-loving plants.
- Ventilate cold frames when the weather is mild.
- Keep houseplants dust-free and fertilize at half-strength until active growth resumes.
- Feed the birds, especially when the ground is snow-covered, and provide fresh water.



The tufted titmouse, who overwinters in our area, might appreciate a well-placed feeder.

CORNER

NATURE

WHAT KIND OF NATURE DEFINES OUR STATE?

Kristin Ward, Park System Naturalist

The process whereby states began adopting symbols to represent their unique qualities originated during the 1893 Chicago World's Fair. Each state selected a symbolic flower to be included in the "National Garland of Flowers." These flowers became the official state flowers and spurred the tradition of adopting other symbols such as birds, trees, and dances, to represent each individual state.¹ New Jersey, the third state in the nation, has adopted nine nature symbols to represent its heritage. All of these symbols (except for the dinosaur) can be found by visiting the Monmouth County parks.

New Jersey's Flower: Violet

The common meadow violet, *Viola sororia*, is a perennial herbaceous plant that is self seeding freely in gardens and lawns. Watch out because this beautiful little flower can become very prolific, also known as a 'weed' in garden language! At the base of the flower on the soil level, they have a bulbous mass which stores moisture, allowing this beautiful little plant to survive harsh conditions.

The common meadow violet also goes by the names of purple violet, woolly blue violet, hooded violet, and wood violet. But do not get caught up in the name as the flower can also be white. You may observe these beautiful deep violet or white flowers from spring into summer at many of our parks including Historic Walnford and Dorbrook Recreation Area.



The Common Violet

The Garden State Animal: Horse

The horse, *Equus caballus*, is our state animal. The U.S. Equestrian Team even has their headquarters in Gladstone, NJ. In western Monmouth County there are many private horse farms, and the Park System's Sunnyside Recreation Area is home to the county's Sunnyside Equestrian Center in Middletown.

While visitors of all abilities are able to participate in our equine programs, Sunnyside excels in therapeutic horseback riding programs for individuals with physical and cognitive special needs. If you do not want to ride a horse but enjoy their company, then come walk the grounds and admire their beauty! There are many different breeds to marvel at, including two wild mustangs. ShyAnne arrived at Rutgers University from Wyoming pregnant and her two year old daughter SkyAnne was born there. The mother-daughter pair were eventually donated to Sunnyside. You may bring donations of treats for the staff to incorporate into their daily diet but please do not feed the horses.



Come see the horses at Sunnyside Equestrian Center.

Jersey Insect: The Honey Bee

Who makes an all natural, deliciously sweet food that can help alleviate seasonal allergies? The honey bee, our state insect of course. Buzzing from flower to flower, drinking nectar and exchanging pollen, honey bees are important pollinators in our food system. Every third bite of food that you take is because of our hard working pollinators, including the honey bee. These docile insects rarely sting because honey bees know that once they do, they will die shortly thereafter. So feel free to marvel at the masters at work next time you pass a meadow buzzing with our favorite little insect! And be sure to say "thank you" for the honey in your tea.



Honey bee on a common plant in our area, goldenrod.

Shell of New Jersey: Knobbed Whelk

Being a coastal state famous for our beaches and boardwalks, it only makes sense that we have a state shell! The knobbed whelk, *Busycon carica*, has held that honor since 1995. This beautiful, large univalve is also called a conch shell; put one up to your ear to hear the ocean! Although knobbed whelks can be found at the beach, Park System Naturalist Barbara Reeves advises that you will have a better chance looking on the bay side. The calmer waters of estuaries act as nurseries for fish and other ocean dwelling creatures which makes the bay shores an excellent place for knobbed whelks to hunt for oysters, clams, and other delicious bivalves. While walking the shores of Bayshore Waterfront Park or Popamora Point, keep your eyes peeled for this stately state shell!



Knobbed whelk

Calling the Goldfinch: NJ's State Bird

Our state bird is listed as the Eastern Goldfinch, although the correct term is the American Goldfinch. If you want to see these strikingly vibrant birds, visit the Manasquan Reservoir Environmental Center's bird viewing area where they are common visitors to our thistle feeders. In the spring time, male goldfinches "dress up" in a bright gold-yellow tuxedo complete with a black "top hat" and contrasting dark black wings and tail with white "cufflings" streaked throughout. If you want these fancy finches to visit your feeders at home, simply put up a thistle feeder and bird bath, and enjoy their beauty!



This goldfinch must be taking a bath—see how his head feathers stand up.

A Stately Tree for NJ: Northern Red Oak

The Northern red oak, *Quercus rubra*, stands tall and proud as our state tree. Growing 70-90 feet tall with a diameter of 2-4 feet, the Northern Red Oak is a large tree that is found throughout the Garden State, although rare on the outer coastal plain. In autumn, our state tree gives us quite a show as the dark green leaves turn yellowish brown to a vibrant red! The acorn is a very important food for wildlife, and the wood is very useful for us humans. A fast growing tree, the wood is used for many products including furniture, moldings, flooring, fuel, veneer, pallets, and railroad ties.² Next time you are on a hike in any of our parks, look for the characteristic trait of the "ski-trail bark" and pointy leaves in order to identify a Northern Red Oak.



Leaves of the Red Oak, note the bristles on the leaf tips.

Blueberry: Healthy Fruit for the Garden State

Indigenous to our great state where it was first cultivated for commercial production, the highbush blueberry, *Vaccinium corymbosum*, is our delicious state fruit. Twenty-one percent (21%) of the nation's blueberries are produced in central and southern NJ, making us second in blueberry cultivation. Blueberries have been gaining more recognition in the world of nutrition and medicinal benefits because they are high in fiber, vitamin C, and anti-oxidants. This whole food is also naturally low in calories and sodium, and has been shown in some studies to aid in the prevention of cancer and heart disease. The highbush blueberry grows abundantly at the Manasquan Reservoir.



During autumn, the leaves of the highbush blueberry turn scarlet red.

Stocked with Brook Trout, NJ's State Fish

The brook trout, *Salvelinus fontinalis*, swims freely through lakes, rivers, and streams throughout NJ, representing our state fish. Actually a member of the salmon family, this speckled swimmer favors cooler waters of 34-72° F. You do not have to go fishing in hopes of catching a glimpse of a brook trout. Come to the Manasquan Reservoir Environmental Center where each spring through summer we participate in the "Trout in the Classroom" program, raising trout from eggs to fingerlings and releasing them majority of them into the Manasquan River in early June. We keep a few for the rest of the summer and will also release them to join their brothers and sisters in the wild.



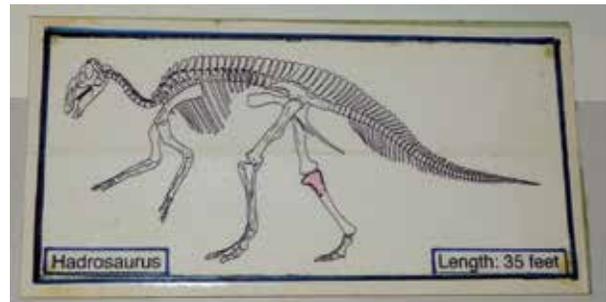
Brook Trout fingerlings, raised from eggs at the Manasquan Reservoir.

Hadrosaur Has a History in NJ

Saving the best for last is our state dinosaur, the Hadrosaur, *Hadrosaurus foulkii*. In 1858 in Haddonfield, NJ, fossil hobbyist William Parker Foulke directed a crew of hired diggers and discovered the first nearly-complete skeleton of a dinosaur. With bones larger than an elephant and characteristics that mix together lizard and a bird, this discovery sparked the further searches and the discovery of many more dinosaurs.³ You can still visit the site where these great bones were unearthed. To stay closer to home, check out the Fall Program Directory for fossiling programs at Shark River and Holmdel Park. (fossiling ONLY permitted through programs.)



Park System Ranger Ralph Johnson is a professional paleontologist who dug up a portion of a Hadrosaurus leg bone right here in Monmouth County. He is pictured with his specimen (left), alongside an illustration of the Hadrosaurus skeleton (below) showing where the bone was located.



Autumn is a great time to hike our many trails and look for the NJ state symbols. How many can you find?

References:

1. www.statesymbolsusa.org
2. Martine, Christopher T. NJ Forest Service, Forest Resource Education Center. Jackson, NJ 5th Ed; 2003.
3. www.levins.com/dinosaur.shtml



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PARK SYSTEM

Autumn is... Planting Time for Tulip Bulbs

A garden lights up when the spring sun shines on this incredibly colorful yet elegant flower. Learn more inside the Home Gardener, pages 6-9.



Visit www.monmouthcountyparks.com