



# MONMOUTH COUNTY PARK SYSTEM GREEN HERITAGE

*Now in its 50th Year...*

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

Vol. 50 No. 3 Fall 2016



Color Theory

Lessons in Lighting

## *Inspired By Nature*

Imagine you are walking in the park...what kind of experience might cause you to pause and take notice? Is it something grand, like a blazing sunset or the dramatic light after a storm? Perhaps it is something smaller and closer...the rustle of an animal underfoot, the sweet scent of a bloom you don't recognize, or a sudden dip in temperature?

In nature there are countless ways to be stimulated, and not just visually. If you are quiet enough and patient enough, all your senses may eventually be awakened. That's why people who come outside—with a pen, brush, camera--or curiosity, alone—often find a fresh perspective. You don't have to be an "artist" for the creative impulse to benefit you. Maybe the mind-clearing effects of being outdoors will help you solve a work challenge or develop some personal insight.



Perspective & Point of View



Patterns & Shapes

*There is something infinitely healing in the repeated refrains of nature – the assurance that dawn comes after night, and spring after the winter.*

*~Rachel Carson (1907–1964) American Marine Biologist, Conservationist, and Environmentalist*

**Continued...**

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## Getting Creative, With Nature as Your Guide

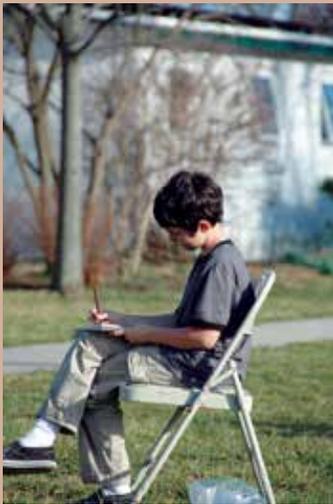
The county parks are a convenient place to start if you are looking for inspiration. Open every day of the year, there are dozens of beautifully maintained sites nearby to choose from, some with well-known vistas featuring lovely waterfront, woodland or meadow scenes. Take advantage of a developed trail system (more than 136 miles) to get you there. Many trails have benches along the way where you can sit and contemplate the scenery.

### Scenic Vistas in the Parks

- View the Navesink River from the Environmental Center picnic grove at **Huber Woods Park, or Hartshorne Woods Park.**
- **Deep Cut Gardens** is the place to study flowers, shrubs, trees and garden architecture.
- View the NY Skyline from **Bayshore Waterfront Park** or **Mount Mitchill Scenic Overlook.**
- Breathe deeply in a lush, beautiful old-growth forest during summer at **Clayton Park.**
- You never know what you'll see in the meadows and fields of **Tatum Park.**
- Walk through a "tree tunnel" formed naturally over time, along the one-mile Track Loop at **Thompson Park**, especially lovely during autumn. (See p. 11)
- For still life photography and drawing, visit **Historic Walnford** or **Longstreet Farm.**

If you are inspired by any of these sites, send us your photo: [info@monmouthcountyparks.com](mailto:info@monmouthcountyparks.com)

Seeking guidance for your first or next creative project? The Park System offers reasonably priced art classes in a variety of media—painting, drawing, photography, ceramics, etc. If you are dedicated to engaging your talent in a natural setting, join us for an outdoor photography class (there's one focused just on sunsets), a Plein Air Painting workshop (painting in the "open air"), drawing classes with nature themes, or a ceramic firing workshop held on the beach using a bonfire.



Drawing Inspiration Outdoors



Plein Air Painting



Nature Photography





The Creative Arts Center at Thompson Park



## A Center for Creative Arts

If you want to bring your outdoor inspiration inside, consider painting, drawing, pottery or ceramics with a class at the Creative Arts Center at Thompson Park. There are even watercolor classes devoted entirely to trees or flowers. You can try a one-session class, or dedicate yourself to a new skill with a longer 6-8 week session. There are options for all ages and levels of experience, some offered at other Park System sites.

There are also different kinds of classes. Take a fine arts fundamentals course, such as *Color Theory* or *Figure Drawing* for a structured, academic approach. Or, sign up for fun with *Fused Glass* or *Bead-Weaving* to make something beautiful, wearable or both.



Landscapes and flowers feature prominently in watercolor painting.



Make your own nature-inspired designs on a copper bracelet, or learn how to weave beaded jewelry.



Whichever Park System program you select be assured it will be a well thought-out, high-quality learning experience. Demand for classes is high and the Creative Arts Center is scheduled for renovation to add a new, gas-fired kiln; expanded classroom space; a new gallery for art shows; and an outdoor patio with room for a sculpture garden.

## A Sample of Creative Arts Classes, Fall 2016

**Adults:** Basic Drawing, Wheel Thrown Pottery, Introduction to Watercolor Painting, Knitting 101, Fall Foliage & Flower Photography

**Kids, Teens & Families:** Drawing in Nature, Beginner Sewing, Children's Ceramics, Parent-Child Pottery, Pint-Sized Picassos



The Creative Arts Center also offers skill-building workshops with professionals, like the one pictured left with Master Potter Tom White.

Check our **Program Directory** for a complete listing; copies available in most county parks, online, or call to have a free copy mailed to your home 732-842-4000, ext. 4312.



Tom White

## OUR NEXT INVASIVE: THE DESTRUCTIVE EMERALD ASH BORER (EAB)

This past spring, the Park System began preventive measures against the Emerald Ash Borer, a wood-damaging invasive beetle from Asia that arrived here in the US on shipping crates. It was first discovered in Michigan in 2002 and since then has spread to 24 other states, killing hundreds of millions of ash trees in its wake.

In 2014, the Emerald Ash Borer (EAB) arrived in NJ and was found in Monmouth County last year. Our state has over 20 million ash trees, with the largest concentrations found in northern NJ. Areas within 10-15 miles of a known EAB find are at high risk of infestation.

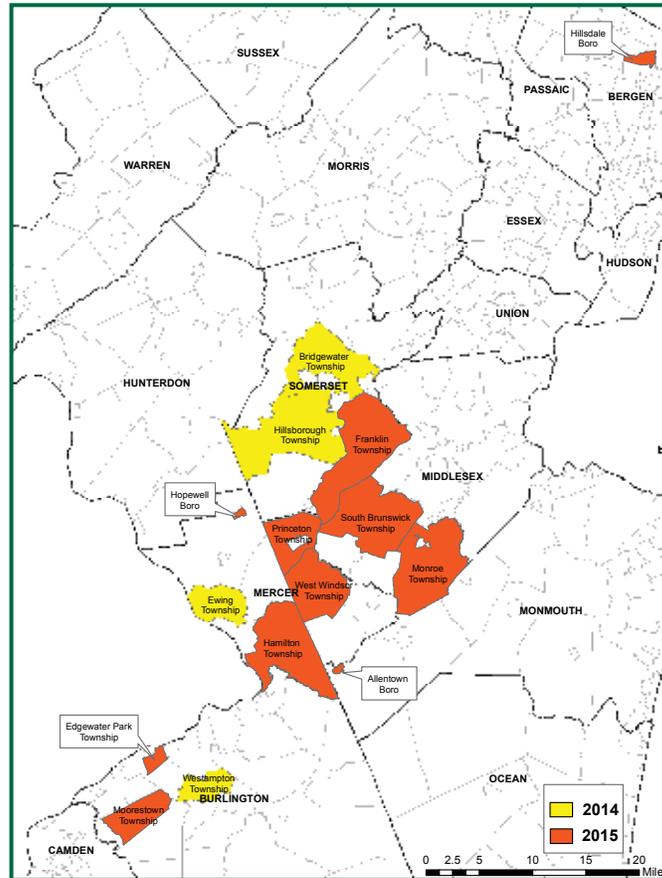
There are ash trees throughout the forests of the Monmouth County Parks. The ash is also a popular landscape tree at manicured estate grounds such as Deep Cut Gardens and Thompson Park, and is commonly planted along fence lines for shade and in parking lots such as Sunnyside Equestrian Center, Tatum and Huber Woods Park. We also have a few high quality specimen ash trees, at Thompson Park and Historic Walnford.



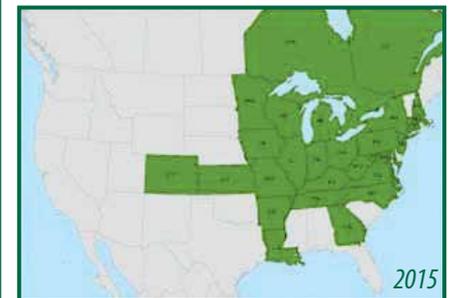
The Emerald Ash Borer (EAB)



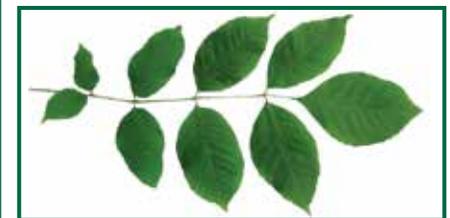
Larvae of the EAB



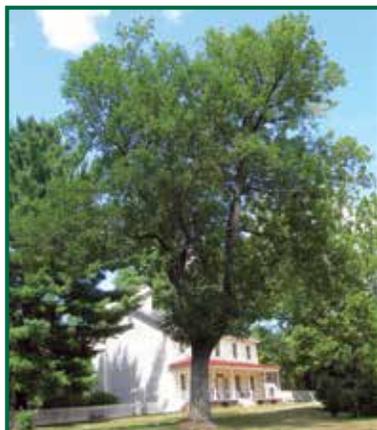
EAB Infestation in NJ



EAB Spread in the US (Past 15 Years)



Typical compound leaf pattern of an ash.



A specimen-quality ash at Historic Walnford.



EAB Tree Damage: The result is die-back of leaves in the canopy, and branches sprouting in odd or low places (as the tree struggles to get the nutrients it needs). Photo: Daniel Herms

### EMERALD ASH BORER – QUICK FACTS

- Native to Asia
- Arrived through Port of Detroit on shipping crates
- Infestations likely started in the 1990s
- First discovered in Michigan trees 2002
- Spread to 25 states as of 2015
- Kills 99% of ash trees, hundreds of millions so far



*How They Kill:* Larvae tunnel back and forth underneath the bark, destroying the tree's conductive tissue and cutting off the supply of water and nutrients to the top. Photo: Patrick Hodge



## Early Detection Program

The Monmouth County Shade Tree Division is participating in a voluntary program with the NJ Department of Environmental Protection (DEP) to track the spread of the EAB. This involves placing purple sticky insect traps containing a pheromone lure in ash trees across the county where there is no known EAB presence yet. The state has also asked private landowners to place traps as well. If and when EAB is discovered, towns will be contacted so they can take action.



*Certified Tree Expert Ed Fitzgerald (left) and Supervisor Kevin Thompson (right) from Shade Tree Division explain how the large purple trap at Pine Brook Golf Course will work once installed.*

## EAB Preparation in the Parks

Eradication of this insect is NOT possible; one of the only things we can do now is prepare. Park ecologists, managers and trained volunteers with help from NJDEP and other forestry experts have been working to identify ash trees throughout the parks and, following state guidelines, began pre-treating some of our high quality ash trees at select locations with pesticide.

When considering the pesticide application process, we also consulted with forestry experts in Michigan where the EAB has been present for well over 10 years. We purchased a special tool they developed to inject a calculated dose of pesticide directly to the roots of the tree based on its size. Over time, the roots take up the chemical and move it into other parts of the tree.

This underground root treatment helps minimize the downside of other application methods. For instance, spraying the crown of the tree may expose wildlife or “good” insects to the pesticide and requires heavy equipment (aerial bucket truck); applying granules around the tree may directly expose wildlife and it may be taken up by other plants, such as clover, which can transfer it to wildlife; and digging a pesticide trench around the tree, and later buried, is prohibitively labor intensive.

Park Managers and trained volunteers first surveyed the parks, tagging and measuring the diameter of target ash trees for treatment. By mid-summer, the Park System had already treated nearly 150 ash trees in seven parks using the method demonstrated here.

*Pesticide is pre-mixed for each application in a modified 30-gallon sprayer, shown on the back of this cart. We say ‘modified’ because it isn’t being sprayed, but instead injected underground into the soil with a specialized injection tool, newly developed for this use (pictured, left).*



*Pesticide dose is calculated based on tree size, by measuring the trunk diameter. The injection tool has a dose counter.*



*Pesticide is injected in a circular pattern around the tree. The probe or injector tip is set at 8” to find the “feeder roots”. It will take 4 months to 1 year for the pesticide to distribute inside the tree, hopefully providing “immunity” against the insect when it arrives.*

A grove of rare and endangered pumpkin ash at Crosswicks Creek Park

was also treated, but with a different method because these trees are located in a wetland where pesticide cannot be applied to the ground. Instead, the pesticide was injected directly into the tree trunks through a series of specially prepared holes around the base of each tree.



*Park System Environmental Specialist Kevin Corrigan and Senior Ecologist Anna Luiten help prepare sites at the base of the ash tree for injection. Arborist Trent Dicks (of the company ARBORjet) is shown using another specialized tool to inject the tree.*

## What Will Happen After EAB Arrives?

According to state guidelines, once EAB is detected in the area, infested trees and other “hazardous” ash (those at risk, in decline or in a poor location) can be cut down and replanted with other non-ash species. Once removed, they can be chipped to a certain size, intended to destroy the insect/larvae or the bark. Or, they can be stripped to reveal healthy, sound wood that can be sold or milled. The EAB is not a deep borer, so it stays just below the bark. **Both of these steps must be done locally since infested trees are quarantined, and cannot be moved.**

## What Can You Do?

Learn how to identify the ash trees in your neighborhood. The state of NJ has prepared a set of guidelines for homeowners and municipalities, available at: [www.emeraldashborer.nj.gov](http://www.emeraldashborer.nj.gov). It is the source for much of the information contained in this article. Private homeowners can contact a tree specialist or arborist to begin taking preventive measures. Consider cooperating with neighbors to increase tree numbers and reduce costs.

## OVERWINTERING YOUR GARDENING MOJO

Diane Allen, Park Horticulturalist

As the gardening season draws to a close, take a few actions now to pick you up during the post-holiday let-down.



Dill seed head (to obtain dill seeds)

### Collect Findings from the Garden

As you are cleaning up the gardens, keep an eye out for interesting seed pods and dried flower heads. These can be used in their natural state, bleached, or embellished with paint, dye or whatever you choose. Add to your decorations during the holidays or after. You might also collect some seeds from your own garden to plant next year, give away or trade. Store in a paper bag, labeled, until you're ready to clean, package and label them – a perfect project for a cold winter day.



Some garden finds. Gold painted gourds and pinecones for the hearth. White painted allium for the mantle. A door wreath made from and embellished with garden finds.

### Pot-up Spring Bulbs for Early Cheer

Spring bulbs are now readily available in stores and by mail order. However, all but paperwhites will need a chilling period in order to bloom. Here's how:

plant the bulbs in a pot with the tip just below the soil surface. Then wrap and store in a cool place (about 40°) for 14-16 weeks. You can also heel them outdoors; place in an unheated garage or a refrigerator. After the holidays, bring them out, water, and set them in a sunny location. Bring them out in two-week intervals, rather than all at once, for a succession of bloom.



Daffodils, crocus, tulip allium, and grape hyacinth (pictured outside), are all good bulb choices for an early indoor bloom.



Plant bulbs pointy side up.

# Start an Indoor Herb Garden on Your Windowsill

You can start with potted divisions from your herb garden or start fresh with seeds or purchased plants. The plants will yield fresh seasonings for those hearty winter meals, as well as an uplifting fragrance. Some herbs are better suited to growing indoors. With a few exceptions, herbs require 4-6 hours of sunlight and will do best in a well-drained soil. If using plants or divisions from your garden, it is best to remove much of the soil and replace with a soil-less growing medium.



Starting your herb garden (Source Wikicommons)



A mature windowsill herb garden (l to r): thyme, parsley, sage and rosemary

**Potting soil amended with sand will work for replanting herbs brought in from the garden (in plastic pots\*): 4 parts growing medium to 1 part sand.**

\*Sand isn't need for clay pots

A mix designed for cactus is ideal, but regular potting soil amended with sand will work as well (1 part sand to 4 parts growing medium).

The following herbs need as much sun as you can give them – a south-facing window:

- **Basil** – Best to start from seed rather than a division (it doesn't transition well and may get a mildew indoors). For indoors, try one of the compact varieties like *African Blue* or *Spicy Globe*.



Basil in an outdoor container garden

- **Oregano, Sage** – A tip cutting from an outdoor plant should root readily and grow well.



Oregano in an outdoor herb garden

- **Rosemary** – Often sold as a topiary around the holidays, rosemary can also be started from a tip cutting. Keep the plant on the dry side, in a 'lean' (not very fertile) soil. These are only marginally hardy in our winters,

so if you put it outdoors for the summer, you might want to leave it in the pot for easy transfer back indoors in fall.

- **Tarragon, Chives** – If you dig and pot these from your herb garden, they will need a dormant period for success indoors. Leave the potted plant outside until the leaves die back, then place in the coolest spot indoors for a few days before moving to a south-facing window. Chives are among the easiest to grow indoors, and will get by on less light; cut down to about 2/3 regularly to stimulate new growth.

Watch for insects, but avoid chemicals. If you see aphids or spider mites give the plant a gentle shower with tepid water or submerge it for 15 minutes. Or spray with an insecticidal soap; these specially formulated soaps are harmless to animals and humans, but you will still want to rinse your herbs before culinary use. If fungus gnats are a problem, allow the soil surface to dry between watering.

Fertilizer should be used sparingly, as growth will slow indoors in winter. Depending on how rapidly your herbs are growing, fertilize every two to four weeks. For best absorption of nutrients, water the plant thoroughly then apply a water soluble fertilizer at 1/4 to 1/2 the rate recommended on the label. Diluted fish emulsion is another option, and the smell should dissipate quickly.

When harvesting, selectively "pinch out" or cut tips of 1-2" to encourage bushier, more attractive growth.

These herbs can get by with less light, and should be happy in a south-, east- or west-facing window:

- **Bay** – Most varieties are not winter hardy here, so, again, is best grown in a pot for easy transfer from outdoors to indoors. Good air circulation is essential.

- **Parsley, Cilantro** – Both are fairly slow growers and prefer cooler temperatures. Parsley seeds take a long time to germinate (the legend is they must travel to the devil and back seven times). The best bet is to start with a plant from the garden or purchased plant and don't expect a big harvest. Take care not to overwater.

- **Thyme** – Pot up a division from an outdoor plant or start from seed.

- **Mints, Lemon Balm** – Pot up a division, take a tip cutting, or start from seed. Mints come in many varieties, and all are vigorous growers.



Mint

Thyme (flowering)

- **Ginger** – Choose a ginger root from the grocery store. I like to find one with tiny pale greenish nubs indicating it's eager to start growing. Plant it a few inches deep. This tropical plant grows naturally shaded by the canopies of tall trees, so it will thrive in even indirect light at about 70°, but keep it away from chilly drafts! Increase humidity by setting the pot on a tray of pebbles and water.



Pinching off the sage

# Nature, Children and Books – Perfect Together

Located in the Horticultural Center of Deep Cut Gardens in Middletown is a special nook filled with children's books about nature, most especially gardening. There are the "how to" plant a garden books and the "what are those" butterfly books which can be quickly consulted for detailed information.



Children's Nook

But, perhaps more intriguing, are those books that blend fact with fiction and are illustrated to draw the reader—and the read-to—into the story. Adults and children who love a good book will spend many enjoyable hours browsing and reading. Some new additions to the library:

- *How Groundhog's Garden Grew* by Lynn Cherry. Squirrel teaches groundhog how to grow his own garden which he eventually shares with his friends. Very detailed, somewhat realistic drawings give so much to look at, even for young children. Don't miss the borders around the big pictures.
- *The Busy Tree* by Jennifer Ward. A simple story told in rhyme about the wonder and importance of trees. The illustrations are large, life-like oil paintings.
- *Miss Maple's Seeds* by Eliza Wheeler. Miss Maple gathers seeds leftover in summer, tends them through the seasons, and then sows them in the spring. Both the story and illustrations are gentle and sweet.
- *Our Shadow Garden* by Cherie Foster Colburn. A young girl and her grandfather create a garden of night-blooming plants for her ailing nana. Sidebars throughout the story give factual details. Uniquely illustrated by young patients of the M.D. Anderson Cancer Center.



## DEEP CUT FALL EVENTS

### The Great Fall Perennial Plant Swap

**Saturday, September 24**

**Plant intake 8:30-10 a.m.; plant selection and check-out 10 a.m.-12 p.m.**

Bring perennials in one-quart, one-gallon, or two-gallon containers and take home the same size and number of plants. Please label all plants. Houseplants may also be exchanged, but no annuals or invasives, please. Call 732-671-6050 for more information.

### Drop-in Surprise Story Time

**First Saturday of each month: Oct. 1, Nov. 5, Dec. 3: 11-11:45 a.m.**

Join us for a reading from a nature or garden related book. If it's cold or rainy, we'll be inside the Horticultural Center, but if it's fair we will be out in the garden. A clue at the entrance will lead you to the secret spot! Recommended for children ages 4-7.



Storytime at the koi pond

### Home Composting Workshops

**Saturdays, Oct. 15 & Nov. 19: 10 a.m.-12 p.m.**

This original form of recycling conserves resources, reduces waste, and contributes to beautiful, healthy plants. Workshops by the Monmouth County Office of Recycling will be held at Deep Cut Gardens, Middletown. Attendance is free; composting bins are available at a discounted fee of \$35.00. Pre-registration is required through the Monmouth County Office of Recycling at 732-683-8686, ext. 6721.

### Photography Exhibit – A Different Perspective

Take a fresh look at the features of Deep Cut Gardens.

Open to all photographers ages 18 and up. Entries accepted from October 21 –November 18 for exhibition in January 2017. Rules and entry form available on Deep Cut Gardens' page at [www.MonmouthCountyParks.com](http://www.MonmouthCountyParks.com).



#### Opening Reception -

**Saturday, January 7, 2017: 1-3 p.m.**

Light, warming refreshments and an opportunity to meet and speak with the photographers.

#### Exhibition - Daily from

**January 8-31, 2017: 10 a.m.-4 p.m.**

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.

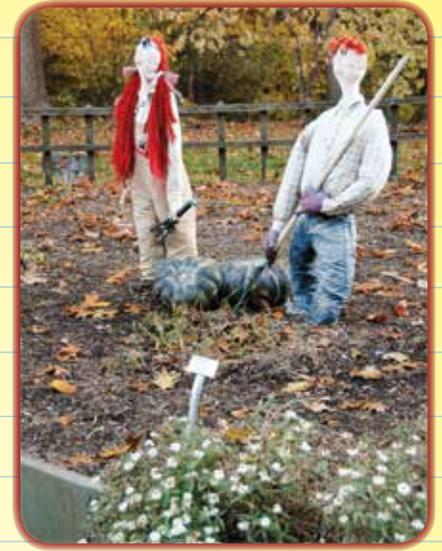
No registration or fee required for the Opening Reception or Exhibition, but please call the park at 732-671-6050 to RSVP for the reception, or for any further information.

# IT'S TIME TO...



## October ✓

- Lift (take out of the ground) corms and bulbs of begonia, caladium, calla and gladiola now to preserve them for next year. Lift dahlia and canna after foliage is blackened by frost.
- Clean up gardens. Discard foliage of any disease-prone perennials, but leave some disease-free specimens for winter interest and seeds for the birds.
- Label your plants.
- Protect your last fruits in the garden from light frost with a Poly-spun frost cloth or a sheet.
- Water lawns, beds, shrubs and trees only if needed to ensure they go into winter well hydrated.
- Apply compost or composted manure over beds to improve soil and plant vigor next season.
- 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 in partial shade to begin acclimating to indoor conditions. Clean thoroughly before bringing indoors.



*Clean up the leaves, decorate with gourds, label your plants...just like these 'gardeners.'*

## Planting in October

- Plant grass seed until mid-month. Apply low-nitrogen lawn fertilizer if not done this fall.
- Plant new trees and shrubs now so they can develop new roots before the soil cools; mulch and water well.
- Plant garlic cloves about 4-6" apart in a rich sandy loam.
- Also, plant pansies and ornamental cabbages for fall color.
- Plant bulbs for next spring.



*Park Ranger Greg Shannon uses a ground or soil auger to dig holes (over 1,000 of them) for Deep Cut's tulip display last October.*

## 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.
- Bring your family to Deep Cut to catch the final fall colors and blooms.



*Fall rose bloom*

## 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.



*Shred oak leaves with mower or leaf shredder*

# CORNER

# NATURE

# AUTUMN "TREASURE" HUNT

Park Naturalist, Ann Lang

Here's a guide to help you understand the ephemeral gold and other jewel tones of fall color in the parks.



## Why Do Leaves Change Color, Anyway?

Chlorophyll is a chemical inside of leaves that makes them green in spring and summer when plants are actively growing. Chlorophyll is used to convert sunlight and carbon dioxide from the air into sugars (carbohydrates)—a process known as photosynthesis. Plants have other color chemicals which are also used in photosynthesis, such as xanthophylls (yellow) and carotenoids (orange). These light-color pigments are present year-round, but the dark green chlorophyll covers them up during the active growing season.

By the end of June, most trees have finished their annual growth, but continue using chlorophyll to produce and store carbohydrates for next year's growth. As summer wears on and the days grow shorter and nights grow longer, the green chlorophyll is no longer worth keeping.



The cost of maintaining it becomes greater than the return of carbohydrates it produces during the day. So the tree grows a "cork" (abscission layer) at the base of each leaf stem to block the flow of water and nutrients. Any remaining chlorophyll that's left in the leaves breaks down, revealing the ever-present orange and yellow pigments.

## Brilliant Reds

Different trees will give us an array of color throughout the fall. Black gum (*Nyssa sylvatica*) is one of the earliest trees to change color. This bright color is from the chemical anthocyanin (red), which the tree uses sugars to produce. Look for patches of red on these trees as early as late August and September. Trees that change color this early expend energy to do so, and then lose the ability to produce carbohydrates with the reddened leaves.

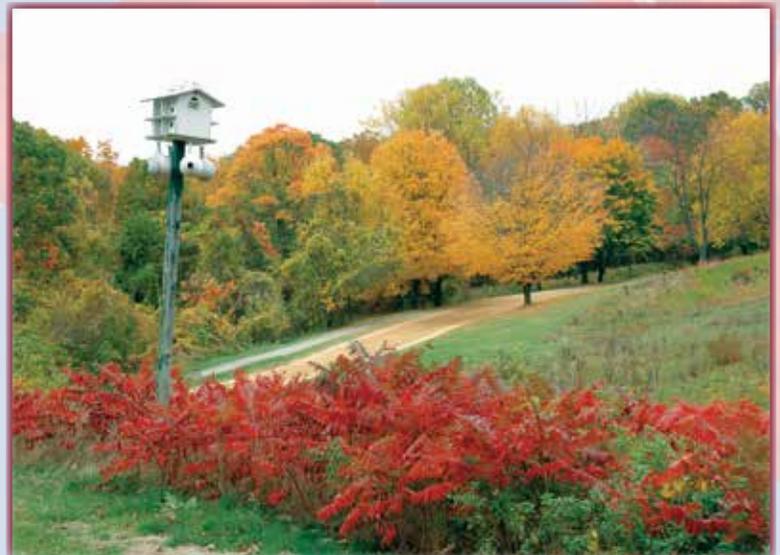


*Black Gum*



*Foliar fruit flags on dogwood*

Why would a tree change color so early? Because some trees want to 'flag down' passing birds to eat its berries (called 'drupes') before they spoil. This process, called "foliar fruit flagging," uses bright colored leaves around the berries to advertise to migrating birds that the fruit is ripe. In exchange for the meal, these birds distribute the seeds of these plants miles from the parent plant.



*Note how the bright red sumac stands out from other autumn colors in the distance (even later in the season).*

Other plants also display bright red foliage, but they do so later in the season and offer no berries. The reason for the tree to use its stored carbohydrates to fuel this color change is unknown but some theories exist. Bright colors may serve to warn insects that a particular tree is healthy. Pests may seek a weaker, drabber host for their eggs. Another theory is that the bright red colors protect the leaves from sunlight, cold and dry weather in fall as the tree continues to remove needed nutrients from the leaves.



Low bush blueberry at Manasquan Reservoir and sugar maple at Thompson Park.

## Location, Location, Location

The differing geology in the northern and southern parts of Monmouth County offer different types of forests. Imagine a horizontal line bisecting the county from southwest to northeast, dividing it roughly in half.



Turkey Swamp Park

Parks on the southern outer coastal plain with sandy soil and pine-oak forests such as Turkey Swamp Park in Freehold, Manasquan Reservoir in Howell and Shark River Park in Neptune have a later, short lived display of yellow color. Oak trees in the canopy quickly turn from green to yellow and then brown. But, low growing bushes in these parks may put on a nice show (see lowbush blueberry at Manasquan Reservoir, above).

Parks in the northern side of the county, on the inner coastal plain, include Huber Woods in Middletown and Thompson Park in Lincroft and Holmdel Park. Sugar maples give these forests shades of red and orange. The red color deepens if late fall weather is sunny and cool.



Manasquan Reservoir



The Paved Trail at Thompson Park



Browns Dock Rd. runs right through Huber Woods Park.

## How Weather Affects Leaf Display

Weather during the growing season (spring and summer) will affect the intensity of colors seen during fall. The change to fall color is triggered by longer nights. Trees stressed by drought will form the abscission layer early and leaves will drop before fall color has a chance to develop fully. Wind and rain may also knock the changing leaves from the trees and shorten the time of the display.



Maple leaf in the snow

Yellow and gold colors are about the same from year to year, regardless of weather, since they are always present in the leaf. Bright sunny days and cool nights in the fall will brighten the red anthocyanins, but freezing damages the leaves and stops development of the red color.

## Pretty Bad Plants...

Poison ivy (*Toxicodendron radicans*) ranges in color from yellow to purple, with glowing reds and oranges in between. Look but don't touch. The fallen leaves can still cause an itchy rash.



Walk the Track Loop at Thompson Park in the aura of filtered yellow light passing through the leaves of the invasive Norway maples (*Acer platanoides*). Although beautiful during fall, their dense canopy threatens

the forests by blocking light so the seedlings of other species can't grow.

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# GREEN HERITAGE

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## *When Art Meets Nature ...*

*In this issue, we explore how being outside—and bringing your outdoor experience inside—can stimulate creativity. Color figures prominently...from the danger behind a beautiful emerald-colored insect to moving our greens (herbs) inside over-winter to learning what we really see when we look at a fall leaf display.*



Sassafras leaf



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