

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

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# **Trail Trash – Keeping our Trails** Clean, Green and Pristine

Zack Karvelas, Assistant Public Information Officer

st people think it's a no-brainer to not litter or leave behind any garbage without properly disposing of it, especially in

some of our most beautiful natural places like parks, beaches and natural areas. Yet, somehow, litter and trash scattered around our trails, parks and waterways are still very prevalent. Park System staff, with the help of volunteers, do an outstanding job at maintaining our park areas and keeping them as clean and pristine as possible; but they can only do so much. The ultimate solution to this problem must start and end with the consumer themselves through education and behavior change. If the trash never gets littered or left behind in the first place, then we wouldn't have to rely so heavily on conducting beach/trail cleanups. Until that kind of behavior is more widely adopted and understood by the millions of people who visit our parks each year, we will continue to play catch-up and work to clean up our parks in real-time.



It might not be that each piece of trash found hidden in the leaves or buried under the sand or the bottles that don't make it into the recycling bin were intended for those spots, but they're there and if not removed will be there for decades to come. Time and time again, we see bags of dog poo, empty plastic bottles, plastic bags, food wrappers and much more along trails and within our beautiful park areas. Chances are there was a trash or recycling can within a close radius to most of the garbage found as well. With over 18,000 sprawling acres of land and as mighty as the Monmouth County Park System is, we cannot do it all. But we are not alone as it is YOU that walks our trails and enjoys our parks the most! So, what can you do?





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Editor/Writer: Zack Karvelas Photographer: Maribeth Gardner Graphics: Michelle Scolletta Questions/Subscriptions: 732-842-4000, ext. 4312; info@monmouthcountyparks.com Leave no trace. What you bring in, take out. Bring an extra bag with you in your backpack or stroller and pick up any loose trash you see during your visit. We all have a part to play no matter how big or small. That one plastic bottle you see laying off to the side can take up to 450 years to break down leeching chemicals into the soil in the process. While the most recent phase of the New Jersey single-use plastic ban law went into effect prohibiting most retail stores from distributing thin, single-use plastic bags and requiring restaurants to implement a straw-by-request policy does not affect our parks directly, what it does capitalize on is the education and behavior change mentioned earlier and a "think globally, act locally" mindset. You don't have to save the planet, but the more individuals who make slight changes in the right direction that can pave the way for others to follow, the more change becomes realized.

Each year the Park System acquires even more acres of land to continue its mission of protecting and preserving open spaces in Monmouth County whilst providing places, facilities, activities and more to residents and visitors. With each addition to the Park System's ever-growing acreage

comes unique challenges in building, restoring or maintaining newly acquired spaces. We all work towards the shared goal of being able to utilize and enjoy our parks in their most clean and natural state possible. We may not be in control of severe weather or other natural phenomena, but we pride ourselves on the state of our parks that is within our control and with the assistance of our visitors.

For years, we have relied on our strong network of dedicated volunteers to help us clean our trails and beaches of trash and unwanted litter. We are only but a few, but with further awareness and

better practices by everyone we can ensure our natural areas and open spaces stay as clean as we expect them to be and as they deserve to be. One volunteer, Jim Gault, with help from his wife Loma, has been volunteering for over ten years. Most of his time has been spent on the Henry Hudson Trail picking up trash almost daily along the 24-mile path and inspiring many along the way. Jim is rapidly approaching 5,000 total volunteer service hours and the Park System cannot thank him and his wife enough for all for their efforts to keep the parks and trails clean.



Time and time again we hear and see other trail-goers, bikers and volunteers who know of Jim and his tireless work put into maintaining our trails and have said how he was an inspiration for them to begin cleaning up and paying more attention to the state of our trails than before! Actions like these really do have a domino effect and can truly make a difference.





From riding your bike to and through the parks to avoid the added emissions, bringing your reusable water bottle with you on your hike, picking up after and properly disposing of your pet's waste or packing your lunch in reusable food containers or bags, there are plenty of small actions you can do to contribute to cleaner and healthier parks that not only help us, but helps you as the ones who we work to provide these open spaces for everyone to enjoy. Every day, there are countless opportunities to do good in this world, to help others, show appreciation for the ones behind the scenes and make a difference – big or small. It's time to act.

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# BE THE CHANGE YOU WANT TO SEE IN THE WORLD!

**Open Spaces, Livable Places** 

# **News** The Renovation Of The Hominy Hill Golf Center



Standing in front of the newly renovated Hominy Hill clubhouse at the ribbon cutting ceremony from left to right: Assistant Director of Parks & Recreation Andrew Spears, County Administrator Teri O'Connor, Recreation Commissioner Brian Foster, Recreation Commissioner Lori Ann Davidson, County Commissioner Ross Licitra, County Director Thomas A. Arnone, Deputy Director Susan M. Kiley, County Commissioner Nick DiRocco, Recreation Commissioner Tom Hennessey, Recreation Commissioner Dave Horsnall, County Park Superintendent Mike Janowski.

#### Paul Gleitz, P.P., A.I.C.P, Principal Park Planner

Visitors to Hominy Hill Golf Course are sure to notice that the Golf Center and surrounding support buildings have been extensively renovated. The Golf Center had not been renovated since the Park System first acquired the course in 1977. Constructed from two former dairy barns in the mid-1960s, the building was no longer fulfilling its potential for public use due to an outdated design and numerous deficiencies that needed to be addressed. In addition, the building needed to meet ADA standards and replace its HVAC and mechanical systems. The improvements ensure that Hominy Hill remains one of the premier public golf courses in the state.

In the early 1940s, Henry Mercer, president of the shipping company States Marine Corporation, and his wife Catherine Schroeder Mercer, had accumulated over 400 acres of land and named it Hominy Hill Farm. The farmland was used to raise prize-winning herds of Guernsey and Charolais cattle. They employed about 25 people who operated the cattle farm and while the Mercers kept the farm primarily for their own pleasure, they did sell the milk to a local processor. An unexpected fire in about 1960 destroyed the dairy barn, but it was promptly rebuilt to restore the farm operation. Soon after the rebuilding, the Mercers decided to transform 180 acres of his 415-acre farm into a golf course.

Mr. Mercer commissioned famed golf course architect Robert Trent Jones, Sr., to convert 180 acres of the land into an 18-hole golf course to entertain Mercer's business contacts. The course was completed in 1965. The membership of the Rumson Country Club complained about Mr. Mercer and the number of his foreign guests, mainly Japanese clients. Hominy Hill provided a first class golf course solely for the use of Mr. Mercer and his guests. He also hired New Jersey architect Derrick Kipp to convert the farm's large dairy barn into a clubhouse with locker rooms and an informal restaurant on the ground floor and a formal restaurant in what had been the hayloft, and the adjoining calf barn into the pro shop and golf cart storage.

In 1975, the Mercer family put the course up for sale. A verbal agreement was made to sell it to the county



and in the meantime, the family resisted higher offers from developers to give the Park System the 18 months it took to secure a Green Acres matching grant for the acquisition. During that time, there were several legal obstacles Mr. Mercer and the Park System had to overcome before the sale was complete, but eventually the county successfully acquired the course. Since then, Hominy Hill has been known as the "crown jewel" of the Park System's golf courses, often rated as New Jersey's #1 public golf course. The course measures 7,049 yards from the blue tees and has 138 bunkers scattered throughout with water coming into play on four holes.

In order to best serve golfers, the iconic 11,000 sq. ft. building underwent major renovations completed this year. The exterior received a re-designed entrance, new roof, new siding and new windows and doors. The entire interior was reconfigured and updated

to improve function and appearance, with refurbished finishes throughout. Interior renovations also included new mechanical, plumbing and electrical systems; a new fire suppression system that includes pumping from an existing pond; an enlarged foyer; and an elevator for ADA accessibility.

Outside construction included a new septic system, expansion of the parking lots as well as construction of new lots, new patios and walkways, lighting and new landscaping. The project also included upgrading the golf administration offices, cart storage and maintenance areas. When golfers and visitors come to the newly renovated Golf Center,

the downstairs is the primary destination. The first-floor features enhanced amenities such as ADA compliant restrooms/locker rooms, lounge/grill room and pro-shop. The upstairs multi-purpose room and revamped catering kitchen will be utilized for golf outings, banquets and professional meetings as well as Park System and county coordinated events.



# **Deep Cut Gardens** ome Gardener 152 Red Hill Road

Middletown, NJ 07748

GS Parkway Exit 114, to Red Hill Road 732-671-6050

# **ECOLOGICAL GARDENING:** Transforming Your Winter Garden Into A Luxury Hotel For Beneficial Insects

#### Kate B. Lepis, Ph.D., Horticulturist

s the nights grow cooler and summer bids farewell, gardeners can relax and enjoy the beauty we worked so hard to achieve. Of course, there will soon be leaves to rake and gardens to prepare for winter, but the workload of fall doesn't quite compare with the flurry of activity experienced in spring. Autumn provides great working weather and a welcoming change to the sweltering heat fresh on our minds. Even so, try to resist the urge to make your gardens too tidy this fall. Leaving all those plant parts just where they are can provide crucial winter habitat needed by beneficial insects and other wildlife.

# **Rethink Fallen Leaves**

Allowing the leaves that fall this autumn to remain in your shrub and garden beds can be an easy way to provide winter shelter for a variety of insects. Many Lepidopterans (butterflies and moths) overwinter in leaf litter. Depending on the species, you could find varying life stages hiding from the cold. Mourning cloaks (Nymphalis antiopa) hibernate as adults and are one of the first butterflies spotted at Deep Cut early spring. Others, like the luna moth (Actias luna), hibernate as pupa while many others spend winter as caterpillars.

Still, other species of caterpillar reach the ground with fallen leaves, and if given the chance, bury themselves to pupate underground. Queen bumble bees also hibernate in the soil and prefer areas with leaf litter for the extra layer of protection they provide. If leaves are raked or blown to the street, all that wonderful life that exists within is carried away with them.







Adult luna moth

Luna moth cocoons are wrapped in leaves to blend in with the leaf litter. Photo by S. Hanrahan, Wikimedia.

# Pupa, Cocoon or Chrysalis – What's the difference?

- Pupa (pupae plural) is the stage in a Lepidopteran life cycle when the larva (caterpillar) metamorphosizes into its adult form.
- A cocoon is a silken casing spun by moths, usually found underground, in the leaf litter, or attached to something.
- A chrysalis is formed by the exoskeleton (outer shell) of a butterfly caterpillar as it hangs upside down by a silken thread.



Tussock's moth (Orgyia sp.) cocoon. Photo by J. Gallagher, Flickr.



Monarch (Danaus plexippus) chrysalis.



The great spangled fritillary (Speyeria Cybele) hibernates in the larval stage





Allowing common violet (Viola sororia) to remain in the garden nourishes hungry caterpillars and provides an early nectar source for queen bumble bees.

As taller perennials (Rudbeckia) grow they help hide feeding damage on the violets.

Fallen leaves also achieve the same objectives as store bought mulch: suppressing weeds, conserving soil moisture, moderating soil temperatures and enhancing organic matter as they decompose. One advantage of a leaf mulch is the ease in which critters can burrow through to reach the soil. Other mulches create a layer that can be impenetrable to some insects. Shredding leaves can achieve a neater look but should be avoided as the life we are trying to promote is likely to be shredded as well. Additionally, leaves that are left whole provide more cavities and pockets to hide in.

Some worry that leaves will cause the soil to be too acidic for the plants we want to grow. Organic farmers from this region view leaves as a valuable source of organic matter but avoid using oak and pine in their production fields.

If you use leaves in the veggie garden, you may want to compost them first. Adding a large amount of "raw" leaves to the garden bed can temporarily decrease the amount of nitrogen available to your food crops as microorganisms use soil nitrogen in the decomposition process. The temporary depletion could be overcome by adding organic nitrogen fertilizer.

Perennial shrub borders are a different story, especially if you landscape with native species. The annual deposition of leaves and other plant parts is exactly what they expect. Plants native to the Northeast evolved in soils that are slightly acidic and low in nutrients and developed adaptations that allow them to thrive under these conditions. With the exception of the lawn, leaving leaves where they fall can help garden plants thrive.

### Allow the Stems of Perennials to Remain All Winter



Switch grass (Panicum virgatum) flower stalks in winter at Deep Cut.

Instead of cutting back flower stalks that have gone by, allow them to remain. The dried flower heads provide winter interest with each fallen snow and provide seed for foraging birds. Many native bees overwinter in the hollow stems produced by flowering perennials. The stems you leave behind will also help trap leaves in the garden and prevent them from blowing around the yard on windy days.



A shrub perennial border functioning as winter habitat.

If the idea of forgoing the fall clean-up goes against the grain, keep neater beds closest to the winter paths most traveled while providing winter habitat in the beds further away. Most of us spend minimal time in our yards during winter; you may find the bed in that far corner of the yard is rarely in a line of sight. Instead of perceiving that bed as messy, try to view it as valuable habitat. Installing a "Pollinator Habitat" sign could communicate to your neighbors that the plant parts left in place was purposeful and not from a lack of effort. It may also inspire others to do the same.

# **Old Logs in the Garden**

If you need to remove a tree, consider using a few cut logs as garden features. Some branching logs have interesting architecture and could even provide a focal point. Nurse log is a term used by ecologists to describe the beneficial function of wood on the forest floor. As logs slowly decompose, a moist and nutrient rich microhabitat is created



supporting beneficial fungi, insects, amphibians and more. The question mark (Polygonia interrogationis) is another butterfly that overwinters as an adult and can find shelter in the bark crevices provided by garden logs. Logs will also benefit mason and sweat bees that nest in rotten wood or holes created by burrowing beetles.



Garden logs with potential nesting holes.



Sweat bee (Agapostemon sp.) Continues next page...

### Other Work That Could Be Completed Instead

Instead of spending time removing debris from the garden bed, try tackling other garden chores. Here in Monmouth County, cooler weather starts late September/early October. This is the perfect time to divide and transplant well established perennials. The air temperature cools more quickly than the soil temperature, so transplanting in the fall relieves water stress and allows the plant to focus energy on re-establishing the root system lost in the move. Fall is also a great time to transplant deciduous trees and shrubs. Even if you see leaf drop as a result, the plant will be going dormant soon and the health impacts will be minimal. Evergreens, on the other hand, are best transplanted in the spring. A compromised root system will have trouble supporting a crown of leaves throughout a windy dry winter and could result in death.

### Better Habitat for Other Wildlife Too

Improving winter habitat for insects will provide more food for other wildlife. It is not uncommon to see songbirds foraging in areas where leaves were allowed to remain. In turn, the winter observer may get lucky enough to spot a bird of prey enjoying a meal that will help it survive the cold. Habitat for insects translates into habitat for all kinds of life.



Northern cardinal (Cardinalis cardinalis)



Cooper's Hawk (Accepiter cooperii) feeding in the same leafy area as the cardinal.



Very little fall cleaning looked good to this hibernating toad found sleeping under transplanted daffodils last March.

## How to Approach Spring Clean-up

Be sure not to undo all the wonderful winter habitat created by giving your garden a spring cleaning too soon. Try to hold



off until daytime temperatures are consistently in 50s. If you grow fruit trees or live near an orchard, a natural cue that spring gardening is safe is when the apple and pear trees have finished flowering. Resist removing all that plant material this time, too. Those fallen leaves are exactly where the red banded hairstreak (Calycopis cecrops) wants to lay her eggs next spring. The prevailing winds may

have forced too many leaves into certain spots, potentially smothering emerging perennials. Spread those leaves out to thinner areas instead of removing them altogether.

When cutting back the old flowering stems, cut to varying heights (12-18 inches) opposed to down to the ground. Leafcutter bees (Megachile sp.) rear their young in these hollow stems, close to their food source. As the days warm

and things grow, the plant litter left behind will be hidden by all the new growth or simply blend in and look like mulch. To achieve a more formal look while maintaining a vital habitat, try creating garden zones. Toward the front of the bed maintain a neater look and use store bought mulch, but allow the back of the garden to function more as habitat.



Leafcutter bee foraging in the All American Garden.

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# CARE for HOLIDAY and GIFT PLANTS

Tanya Dinova, Horticulturist & Park Ranger



Celebrations, special occasions and festive gatherings are always accompanied by plants. From aromatic herbs to stunning size blooms and colorful displays, flowers bring us a special kind of cheer. In their presence we feel connected to the natural world. Studies show that flowers have an ability to create positive emotions and to influence our mood. They make us happy, uplifted, relaxed and less anxious by giving us feelings of higher enjoyment and life satisfaction. Or as I would say: "Life is better with a flower."

In addition to fresh cut bouquets, houseplants are popular holiday gifts – for example the poinsettias at Christmas and lilies at Easter. "Flowers bring about positive emotional feelings in those who enter a

room," said Dr. Haviland-Jones. "They make the space more welcoming and create a sharing atmosphere." I remember being totally wow-ed the first time I received an Amaryllis plant. I loved the fresh bloom and its intricate pattern, and I wanted to keep it forever. Chances are you know that feeling too, so here is a list of quick tips on how to care for your holiday gift plants.

# Poinsettia

You can extend the life of the colorful bracts of the poinsettia (red, white, pink and speckled) by keeping the plant in bright, indirect light with a frequent watering schedule. It's recommended to keep away from sunny windows and dry air vents. Allow the plant to acclimate in its new home for a week before you take any action. Remove wrapping that can obstruct drainage and growth. Your poinsettia will be happy outdoors once the night temperatures stay consistently above 60°F throughout the summer months. In the fall, bring the plant indoors. Starting October 1, give the plant 14 hours of continuous darkness daily (from 5PM to 8AM) until bract color is well developed (mid-November). This can be done by placing the plant in a closet or covering it with a cardboard box. During the remaining 10 hours each day, give it maximum light.

# Chrysanthemum

Two types of mums are sold at retail outlets: pot mums (killed by frost) and garden mums. Garden mums are generally available in the fall as a flowering pot plant. They can be planted outdoors and are hardy through the winter. Garden mums are perennials and will flower each year. To create a "fuller" effect we keep cutting them back until July. Pot mums are greenhouse varieties available year-round; to extend their blooming time provide them with diffused, bright light and 60°F-70°F temperatures. Water as needed and do not let the leaves wilt.





Chrysanthemum Pot Mums

Chrysanthemum Garden Mums



Thanksgiving Cactus

Amaryllis

# Holiday Cactus

There are three related plant species that look like Christmas cacti. They bloom at different times of the year and can be found flowering at Thanksgiving, Christmas and Easter. All three require bright sunlight and moderate moisture levels. To re-bloom the Christmas cactus needs two resting periods (spring and fall). You can easily facilitate that by minimizing the amount of water and lowering the daily temperature after blooming has concluded. Move the plant to the coolest room in your house. Starting late April begin to increase watering. You can take the plant outside during the summer, just pick a shady spot and look out for slugs. In the fall, bring your plant back indoors and allow for the second resting period. Around October increase watering and begin regular feeding as it begins to produce buds. These cacti are easily propagated from stems – perhaps you can give that a try and continue to perpetuate the carnival of festive blooms.

Amaryllis is generally available from Christmas to Easter. They could be gifted as a bulb or as a flowering plant. These plants flower six to eight weeks after bulbs are planted with orange, red, white and pink varieties. Individual blooms may last up to a week. A flower stalk usually produces three or four large, trumpet-shaped blooms. To re-flower, allow the foliage to fully develop (you want four healthy leaves); fertilize and water throughout the summer months. In late summer or fall, as the leaves begin to die back, water less often. When the leaves have died completely, allow the soil to dry out and place the bulb in a cool, dry place for four to eight weeks before resuming watering. The name "amaryllis" comes from the Greek word amarysso, which means "to sparkle."



Amaryllis

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# CORNER THE BLACK & YELLOW GARDEN ORB WEAVER

#### Carmen Peterson, Principal Park Naturalist

A quick search on the internet for most common phobias reliably produces results with arachnophobia at the top of the list. Yet, few creatures also elicit as much fascination as spiders do. We don't have to delve far into both ancient and modern cultures to see how captivated humans are with the spellbinding attributes of these eight-legged animals. Love them or dread them, the truth is spiders play pivotal roles in ecosystems throughout the world.

## **An Amazing Arachnid**

Along with ticks and scorpions, spiders belong to the group of animals called arachnids. Distinguishing features of arachnids are an external skeleton, four pairs of legs and two main body parts, the *cephalothorax* and the *abdomen*. Arachnids also have *pedipalps*, a pair of appendages by their mouths that are used for manipulating prey and by male spiders during mating. In some spider species, the pedipalps are long enough to appear like another set of legs but they are seldom used for moving. All arachnids have jaw-like organs called *chelicerae*. Spiders, though, are the only arachnids that have fang-like chelicerae that can inject venom into its prey. Unlike other arachnids, spiders have spinnerets, special organs at the rear of their abdomens that allow them to make their

legendary threads of silk. And let's not forget all those eyes! Most spiders have eight eyes arranged in two to three rows over their mouthparts.



There are more than 40,000 species of spiders worldwide and an estimated 3,800 of those can be found in North America. This article singles out one of our area's most striking and common spiders, the black & yellow garden orb weaver (Argiope aurantia).

As its common name implies, garden orb weavers have distinctive black and yellow patterns along their oval shaped abdomens. The cephalothorax is covered with silvery hairs.

Scientists theorize that their bold coloration may serve to attract insects, much as similarly colored flowers do. Interestingly, only the females of the species display these bright colors. Mature male Argiope spiders are muted shades of gray or brown. Additionally, males are much smaller than the females. Females can be more than an inch in main body length, but males are usually less than a third of an inch.



Female and Male Argiope aurantia

### To Weave a Web

Although all spiders produce silk threads, not all spiders produce webs. Orb weavers, like the black & yellow garden spider create circular, vertically hanging webs that are especially noticeable in late summer and early fall. What is the benefit of having a web that is in an upright position? All the better for catching insects in flight.

The black & yellow garden weaver likes to build its webs in sunny areas like fields, meadows and open gardens. The creation of the web occurs daily, usually in the same spot if left undisturbed. Orb spiders have various glands in their abdomens that secrete different types of protein-rich liquids. Spinnerets, special organs at the base of a spider's abdomen, compress the secretions to produce silk threads. Orb weavers have three pairs of spinnerets.

An eye-grabbing feature of the garden spider web is a zig-zag pattern running down its center called the *stabilimentum*. The stabilimentum was once thought to add structural stability and strength to the web, but since it is only found in the webs of spiders that are active during the day, it is now thought to play a visual role. One guess is that it attracts

insects by reflecting UV light. Alternately, birds may avoid flying into and destroying the webs after sighting the zipper-like pattern. Nonetheless, the true purpose of the stabilimentum is currently unknown.



Garden Spider

General Parts of Spider

# Super Sensitive Predators

With all those eyes, you may think spiders have keen sight. Remarkably, most spiders can only see blurry shapes and detect light from dark. Their strong spidey senses lie in their abilities to touch and detect vibrations. Spider legs contain many small hairs called *trichobothria* which are very sensitive to movements and vibrations in the air. Studies have shown that even in sightless spiders these "touch-at-a-distance" receptors can pinpoint the location of a flying insect up to a

foot away. Other special movement detectors called slit sense organs are especially important to orb web spinners. The slit sense organs are found in the leg joints and they detect the



Black & Yellow Argiope aurantia, Backus Woods, Walsingham, Ontario

weaver from being harmed

by struggling prey. It is also

useful for quickly capturing

several prey at once. Once wrapped, the weaver will use

its fangs to inject paralyzing

venom into its prey through

encased prey is then hung by

the silk wrappings. The

a thread to be eaten.

smallest of vibrations along the threads of the web.

A weaver's amazing web is not only a sticky trap, but it is also an extension of the spider's tactile senses. A flying insect landing on a web causes movements that can be detected by the ever-vigilant orb weaver waiting at the web's center. Using its acute sense of touch, the spider will identify the source of the vibrations and immediately follow the radial thread leading to the ensnared prey. Black & yellow spiders first immobilize their prey by wrapping them in silk threads. This prevents the



Argiope aurantia with bee prey

# Life Cycle of the Black & Yellow Orb Weaver

In late summer, it may appear as though orb weavers have decided to decorate the outdoors to celebrate the coming fall season. Their large, beautiful webs are easy to find on morning walks in our parks. But where have the spiders been earlier in the year? They have been present but are more noticeable in the late summer when most spiders have reached maturation and have grown to their largest sizes.

Black & yellow weavers live for about a year. After a series of molts by which they shed their outgrown exoskeletons, the spiders are mature enough to mate. The male orb weaver approaches the females' web with considerable care so as not to be mistaken as prey by the female. After mating, the male orb weaver usually dies and occasionally may be eaten by the female. The female orb weaver places the fertilized eggs into

a sac made of special silk threads and secures the sac to her web. The spherical sac can be an inch long and contains 300-1,000 eggs. The female dies with the first hard frost of late fall or early winter.



Black & Yellow Argiope aurantia Egg Sac, Woodbridge, Virginia



Eggs overwinter in their protected sacs, but most of the eggs don't survive. Many birds and parasitic insects rely on the eggs as a source of food. Some spiderlings, small miniature versions of the adults,

Black & Yellow Argiope aurantia Spiderlings

emerge from the sacs in the spring. Using a thread of silk to carry them long distances along air currents, some of the spiderlings "balloon" to find places to build webs and to grow.

## **Heroes of Gardens and Fields**



Spiders, like the black & yellow garden weaver, are instrumental for keeping insect populations in check. They also are important food sources for other predators. Although they are ferocious hunters of small creatures that land on their webs, they are virtually harmless to people. So, seek out these marvels of nature the next time you are out for a walk!

#### Joro Spider

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Keeping our trails and parks clean is hard work and we rely on more than just our dedicated Park System employees to help, we rely on the park-ticipants who frequent our trails and park areas more than anyone to pitch in and help keep them clean. Small actions like using reusable items and picking up after yourself and, if you're feeling bold, picking up after others goes a long way in protecting our natural areas and beautiful parks for all to enjoy.

The Renovation Of The Hominy Hill Golf Center, Care For Holiday And Gift Plants, The Black & Yellow Garden Orb Weaver.



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