melodious strains of guitar, the opening reception for NCNPS first artist’s show, *The Art of Native Plants*, was held from 5-7 p.m. May 5 at the beautifully rustic Blowing Rock History and Art Museum. Thirty-eight NCNPS members and other artists exhibited artworks in sculpture, fabric, clay, and mixed media, as well as framed photographs, drawings and paintings, chosen from among nearly 100 submitted works.

*Trena McNabb*, an artist in her own right, originated the idea for the show, and put in countless hours toward engaging participants, coordinating with the Museum, as well as submitting her own signature art. Unfortunately due to illness, she was not able to attend the opening, an absence felt by all who attended. *Dianna Loughlin* of the Museum worked with Trena to bring *The Art of Native Plants* to fruition in the Atwell Gallery.

*Lynn Druyea*, Professor of Art at Appalachian State University, award-winning artist and avid gardener, served as guest juror of the exhibition. Best in Show was awarded to *Stan Gilliam* of Oak Ridge, NC for “Post Oak,” a colorful kaleidoscopic print of Post Oak leaves reminiscent of stained glass. Honorable mention was awarded to *Will Stuart* of Matthews, NC for his photograph, “Emerging Beauty,” showing a stand of Golden Club reaching up out of a still pond. Honorable mention was also awarded to *Jim Sams* of London, KY for his intricately detailed woodcarvings of our native Crossvine and Mountain Laurel.

The works exhibited showcase the wide variety of talent of NCNPS members, as well as reflected the deep love they have of North Carolina native plants and their dedication to cherishing and preserving the diversity of the North Carolina botanical landscape.

*(See photos starting on page 6!)*
I wish we could ask plants questions! During my 50 years of working with folks, talking about plants at botanical gardens, field trips and lectures, I have found that many people do not understand the basic life cycle of plants and what they must go through to survive. This is not taught in school—we usually just learn about the details of photosynthesis if we learn anything in detail about green plants. In truth, all plants must carry on the same life process as animals, and solve the same problems to increase in numbers, evolve and compete in the world.

As with animals, plants come in male and female members, and they must mate, have babies, work to build a home, sleep, go dormant or migrate, and get food. But, plants must accomplish these goals without brains or feet. I would encourage you to watch the on-line video called *What Plants Talk About*. (To view it free, search online for this title under “Videos”) This remarkable program shows that plants have amazingly complex behavior to accomplish their life’s goals. In this very brief essay I will restrict my comments to flowering plants (as opposed to bacteria, mosses, ferns and conifers).

All organisms must accomplish four stages in their life cycle:
1. **Sexual reproduction**, to create new offspring
2. **Dispersal** of offspring into the world
3. **Establishment** of seedlings where they can grow
4. **Maintenance** of the maturing plant until it can reproduce again

First, all organisms depend on each other for survival in the web of life, in a context of competition and cooperation. Eat or be eaten. There are no negative interactions—everything works toward the good of the whole. In the first of four life cycle stages, **plants** make male (pollen) and female (ovules) reproductive parts in colorful

(Continued on page 3)
structures called flowers. They are arranged with showy attractive units, offering rewards of pollen and nectar to animal visitors, such as insects and birds who are required to carry the male pollen to appropriate female stigmas—the process of cross-pollination. This mixes the genes, just as in animals, by encouraging non-self-fertilization.

These flowers are produced on schedule, according to the season in which the plant has adapted to bloom, based on a variety of complex factors. Effective cross-fertilization results in seeds inside fruits. Fruits are for protection and dispersal of the seeds with embryos. There are myriad ways that fruits disperse their seeds—but scatter they must. And land in a good spot. Only a small percentage of seeds actually germinate and grow to maturity—thank goodness, or we would be over-run with plants. Just as animal populations must be kept in check with the natural environmental resources, so must plants.

The individuals that grow to maturity rely on luck and skill. They must have the abilities to get nutrients, ward off attack, and develop strong bodies to compete in the field or forest. These abilities, called adaptations, allow each species to survive in its specific environment, so that, on average, each mother and father plant (providing egg and sperm) can just replace themselves during their lifetime of reproductive attempts. And thus the population remains viable. Each species has its own strategy. This is what the web of life is all about—interacting, getting along, cooperating, competing, and ending up with a balance. As a familiar example, the Monarch Butterfly caterpillar eats only milkweed plants. The milkweed doesn’t like this, but must tolerate it to get butterflies that it requires for pollination. They always grow back.

In your Native Plant Society we also exist as a “web of life,” with interactions among members, and strategies for survival to carry out our goals. What is your particular skill or adaptation that you bring to the “group” that can make us a stronger organization? Can you become more involved?

President’s Report (cont.)

Orange Butterfly-weed
—Larry Mellichamp

Carolina Lily, male and female
—L. Mellichamp

Monarch caterpillar on milkweed
—Paula Gross

NPN Summer 2016
Saturday June 4, 2016

Arrive at 10:00 a.m. for indoor & outdoor programs:

**Along-the-trails Plant ID** sessions with Larry Mellichamp, Lisa Gould & Ann Walter-Fromson

**What’s in Bloom?** Indoors with Judy West & Lynda Waldrep, to highlight native plants currently in bloom and fruit/seed. Bring flowers, fruits/seed, or cuttings to share.

11:30 is brief annual business meeting and questions

12:00 lunch – bring a covered dish; we will supply fried chicken and barbeque, and ice, tea, water, paper products

1:00 -3:00 Auction – bring quality, labeled **native** plants!

**Location:**

**Seven Springs Lodge & Retreat**
(North off I-40 between Statesville and Winston-Salem)

You can use 2 addresses—they both get you to the same spot:

118 Alder Lane, Farmington NC 27028 OR
256 Pineville Road, Mocksville, NC 27028

Heading east from Statesville or west on I-40 from Winston-Salem, take Exit 180B, NC 801 N.
Go 5.5 miles and turn right on Farmington Road
Go 1.1 miles and turn left onto Pineville Road.
Go 0.3 miles and turn right onto Alder Lane (the sign for this is small –you are likely to go right past). There is also a small sign that says “Seven Springs”. **LOOK FOR “Native Plants” Signs**
Go past the small house on the right (this is the caretakers’ home) and on a short way into the big parking lot.
Park there and proceed down the path to the left of the parking lot, to the lodge. This is the biggest building on the property; there’s a small pond behind it.
Trouble finding it? call Larry at 704-578-5991.

There are plenty of chairs and tables, and restrooms inside the lodge, with ceiling fans and plenty of windows. Eat inside or outside on tables. There is room outside for staging auction plants--drive up, unload, then go back and park.
Cooperative Plant Adventures

By Ann Walter-Fromson

( Editor’s Note: This article is reprinted from the newsletter of the T. Gilbert Pearson Audubon Society Chapter of Guilford County, with permission from the author. )

We have had great weather for our Wednesday wildflower walks to area trails and parks.

Each week we’ve had a congenial and knowledgeable group of folks participate, with many people from both T. Gilbert Pearson Audubon and the Triad Chapter of the NC Native Plant Society. During the first four walks, we saw at least two-thirds of the species from our target list of 25 wildflowers in bloom.

Forty-eight individuals attended the six wildflower walks to area trails and parks. The number of participants on a walk varied from eight to 21, for a total participation of 95.

Here are a few highlights from the various walks:

At the Bog Garden, we saw clumps of large leaves growing in a low, wet area. It was suggested that this is Skunk Cabbage. Judy Stierand discovered that Mark Rose (former president of the Native Plant Society) planted Skunk Cabbage at the Bog Garden, making for a positive identification.

On several walks, folks asked about fiddleheads. This term refers to the curled-up frond of several species of ferns. Only some fiddleheads are edible, with Ostrich Fern (Matteuccia struthioperis) fiddleheads bring most highly recommended for flavor. Some, like Braken fiddleheads, are edible only when cooked, because of toxins in the plants.

On the Laurel Bluff Trail, we saw a blooming shrub in the heath family that, after some research and later discussion, I decided is one of the highbush blueberries, Vaccinium sp.

On the Beech Bluff Trail, we saw a violet with a deeply cleft leaf, Viola palmata, which is called Blue Wood, Early Blue or Palmate Violet.

Finally, we saw many additional spring ephemerals in bloom on our walk at Marie Poteat’s farm, where she has plants native to the mountains (such as Dutchman’s Breeches and Goldenseal), as well as to the Piedmont region of North Carolina.

Don’t Forget Amazon Smile!

If you order from Amazon, you can support the NC Native Plant Society! We are now set up with Amazon’s Smile program for donations to charities. Go to https://smile.amazon.com/ Log into your Amazon account and type in North Carolina Native Plant Society, which will bring up our name. Click on North Carolina Native Plant Society. You are now set up. When you order, we will get .5% of your eligible AmazonSmile purchases!
Native Plants Wow the Art World! (cont.)

**NCNPS Artists included in the exhibit:**

Betty Lou Chaika of Chapel Hill  
Carolina Lara Corona of Winston-Salem  
Christine Lisiewski of Huntersville  
David McAdoo of Kernersville  
Florrie Funk of Asheville  
Jim Sams of London, KY  
Mark Rose of Boone  
Preston Montague of Raleigh  
Stan Gilliam of Oak Ridge  
Trena McNabb of Winston-Salem  
Will Stuart of Matthews

**NCNPS artists and friends enjoyed The Art of Native Plants reception held May 5. —Robert Jones**

Experience **The Art of Native Plants** now through July 24 at the Blowing Rock Art & History Museum, located at 159 Chestnut Street on the corner of Chestnut and Main in Blowing Rock, NC. The Museum is open 10 a.m. to 5 p.m. Monday, Tuesday and Wednesday, 10 a.m. to 7 p.m. Thursday, 10 a.m. to 5 p.m. Friday and Saturday, and 1-5 p.m. Sunday. Admission is $7 for adults and $6 for students, seniors, active military, and children ages 5 and up.

**Artist Nancy Cook with her "Sweetgum Quilt". —Theresa Morr**

**He who plants a tree plants a hope.**  
Lucy Larcom, American poet, author
Native Plant Art Show (cont.)

When I rise up
let me rise up joyful
like a bird.

When I fall
let me fall without regret
like a leaf.

Wendell Berry, American novelist,
poet, environmentalist, farmer

I love to think of nature as an unlimited broadcasting station, through which God speaks to us every hour, if we will only tune in.

George Washington Carver, American botanist, inventor

—Photos by Lisa Gould and Theresa Morr
In Memoriam: Robert Linfield Mackintosh

We sadly bid adieu to Robert Linfield Mackintosh, a Life Member of NCNPS, landscape architect, nursery owner, gardener, and lover of plants and the places they grow. Robert and his wife, Julia, were most recently owners and stewards of the Margaret Reid Wild Flower Garden in Raleigh, which they purchased in 1997 and spent the rest of their lives caring for and sharing with the community. But their involvement with the NCNPS dates back to the mid-1970s when they moved to Aiken, South Carolina from the Caribbean and founded Woodlanders Nursery. This small mail-order nursery was a pioneer in offering a diversity of plants that thrive in the southeastern US and in actually propagating them rather than “wild collecting”. Woodlanders introduced many unusual forms and garden-worthy southeastern natives, including Kalmia latifolia ‘Pristine’, Amsonia hubrichtii, Wisteria macrostachya ‘Clara Mack’, Illicium mexicanum x floridanum album ‘Woodland Ruby’, and Zenobia pulverulenta ‘Woodlanders Blue’.

As they researched native plants of the region, Robert and Julia reached out to folks at the NC Botanical Garden in Chapel Hill, and became connected to the NCNPS, then called the NC Wild Flower Preservation Society, whose membership list became their first mailing list. Ken Moore remembers garden staff seeing them off with their station wagon filled from window to window with plants from the NCBG nursery.

After “retirement” to Raleigh, Robert could usually be found in the garden, restoring it after Hurricane Fran’s devastation and shaping it through his design skill and his vast knowledge of plants (native and otherwise). Robert and Julia shared the Reid Garden through formal and informal garden tours and for several years they taught a Encore class each spring on local wildflowers.

Friends who spent time with them at the Reid Garden or out on a NCNPS Reid Chapter walk, treasure the friendship that Robert and Julia so generously shared and the graceful way they shared their immense knowledge not just of plants, but also birds and other wildlife. Dale Batchelor wrote, “Your father was endlessly patient in answering my gardening questions or helping me with plant identifications. Both Robert and Julia were teachers by example who shared their curiosity and enthusiasm for learning, as well as their knowledge. Woodlanders Catalog was such a wonderful resource in those pre-internet days when I was trying to learn something about native plants. I especially miss Robert's raised eyebrows, mischievous remarks and the joy he took in pretending to be a curmudgeon.”

We who are left to care for the Reid Garden have big shoes to fill.

Submitted by Amy Mackintosh

Mr. Mackintosh died Feb. 14, 2016.
The word “bee” often conjures up thoughts of stings, hives and honey. But many would be surprised to learn that most native North American bees neither colonize in hives nor produce honey. Also surprising is how some wasps and flies have adapted their appearance to look like stinging bees in order to avoid predators.

*The Bees in Your Backyard* is a comprehensive guide for gardeners interested in knowing more about the specific bees pollinating their gardens in their area. It is also an in-depth study for those interested in a more scientific approach to identifying North American bees.

Chapter 1, “Introduction,” is almost a book in itself. It is divided into subchapters covering general information on North American bee life. In “The Bee Lifecycle,” we learn that most bees conduct extensive preparations to provide food for their young, but may never actually meet them, having died long before their eggs hatch. Bee anatomy is explored in “A Bee’s Body,” where we learn such details as how many segments to count in bee antennae, and the functions of mouthparts and mandibles.

In subchapter 1.9, “How to Study Bees,” the authors provide clear instructions on how to capture bees and pin them in a collection, or, thankfully, how to chill them into sluggishness so they can be safely studied and released again. This is followed by “Identifying Bees,” which includes enlarged pictures of all the North American bees, with an identification key to the species chapters based on individual mouthparts, wing veins, antennae and even tongues! The introductory chapter concludes with a call to all readers to use the information presented to help maintain the North American bee population survive habitat loss and species decline which after all, benefits us.

The next chapter, “Promoting Bees in Your Neighborhood,” discusses the important role native bees play in pollination. “Providing Habitat,” explores various housing that can be provided in the garden to encourage bee habitation. This chapter also provides a list of favorite plants in each of seven major regions of North America to encourage bee habitation. And chapters three through eight explore the six major North American bee families (Andrenidae, Colletidae, Melittidae, Halictidae, Megachilidae and Apidae) and where they can be found. The final chapter investigates “bees gone bad,” known as “pollen thieves” or cleptoparasites. Southeastern gardeners would do well to learn to identify Tribe Epeolini, the most abundant cleptoparasite in the Southeast.

*The Bees in Your Backyard* is a fascinating look into the world of native bees. The text is straightforward and easy to follow. The crisp, color photos show enlarged bee specimens. Be sure and read the tan-colored box inserts; these provide some of the most fascinating anecdotes and little-known bee facts. It is a most valuable addition to the amateur naturalist’s or entomology enthusiast’s collection.
Two invasive plant species in coastal habitats have garnered lots of attention in recent years: Beach Vitex (*Vitex rotundifolia*) and Common Reed (*Phragmites australis*). Beach Vitex (also called Roundleaf Chaste-tree or “the Kudzu of the Coast”) is a terrestrial plant that can be a scourge on beaches and dunes, while Phragmites is a wetland grass that thrives in brackish and freshwater habitats.

Beach Vitex is a deciduous shrub/woody vine with rounded, opposite leaves that have a spicy odor when crushed; it has purple flowers and reddish-purple fruits. It is in the Verbena family and is native to eastern Asia and the Pacific Rim. The plant forms mounds but also sends out runners that can spread up to 60' away from the parent shrub. Pieces of the plant break off during high tides and can be carried to new areas where they root and form additional colonies, and it can also spread by seed.

In the late 1980s, Raulston Arboretum at NC State University recommended using Beach Vitex in South Carolina, for ornamental purposes and beach stabilization, as the plant is both drought and salt tolerant. Unfortunately, it began to spread and naturalize, and by the mid-1990s was beginning to crowd out native dune plants such as Sea Oats (*Uniola paniculata*). In 2003, sea turtle advocates in South Carolina became concerned that Beach Vitex was interfering with sea turtle nesting success, and the state formed a task force to address concerns about its spread. In 2005 North Carolina agencies, along with volunteers, teamed up with the South Carolina efforts, and eventually Virginia also joined the Beach Vitex Task Force. Beach Vitex has now spread north to New Jersey and west to Texas, and is considered a Class B Noxious Weed in North Carolina.

Melanie Doyle has been one of the major movers in the Beach Vitex coalition in our area, and she reports that their work decreased the amount of Beach Vitex by >70%. It is still popping up, however, so if you come across Beach Vitex, don’t try to pull it out! Instead, take a picture, document the location, and contact Melanie at (910) 622-5766 or doylmc12@wfu.edu. More information about this invasive is available through the NC Invasive Plant Council at [http://nc-ipc.weebly.com/uploads/6/8/4/6/6846349/beach_vitex.pdf](http://nc-ipc.weebly.com/uploads/6/8/4/6/6846349/beach_vitex.pdf).

Unlike Beach Vitex, European Phragmites is no new immigrant to our shores, as there are records that go back over 3,000 years documenting its presence in North America. Common Reed is considered one of the most
widely distributed plants in the world, found on every continent except Antarctica.

A perennial grass that grows up to 15’ in height, Common Reed’s hairless stems and leaves are green in the summer and turn tan in the fall; the plume-like inflorescence is purplish-red in the summer and also turns tan in autumn. It thrives in both freshwater (including acidic and alkaline waters) and brackish habitats, although it has less competition in brackish waters, as fewer native plants can tolerate the salinity levels that Phragmites can handle. It will also grow in damp sands; I have seen rhizomes up to 15’ long spreading across sandy areas near brackish ponds.

Common Reed can spread across a wetland rapidly and sometimes eliminate any open water. Its roots and stems form dense patches, crowding out native plants and decreasing both plant and animal diversity. A few native birds, such as the Red-winged Blackbird, will nest in these stands, but in general bird diversity decreases when Common Reed takes over, and plant diversity plummet.

To complicate the story, there is also native Phragmites (*Phragmites americanus*), and it’s possible that there are hybrids between the two, although to date none have been documented in the wild. In general, here in N. America, European Phragmites tends to be an aggressive grower and form large stands in wetlands, while American Phragmites plants are usually more scattered (there are minor morphological differences as well as genetic differences).

The rapid expansion of Common Reed in North America didn’t begin until the European colonization of the continent, when disturbance of marshlands increased dramatically. For example, salt marshes were farmed and grazed; roads were built, changing drainage patterns and bringing nutrients and pollutants into the marshes; and marshes were dredged or drained for mosquito control. Salinity levels were often lowered by these activities, giving Phragmites, which can tolerate brackish water but not the full salinity of seawater, a chance to thrive. Its spread has also been aided by cars and boats carrying around seeds and root fragments.

Control of Common Reed is difficult; to date, no biological control agent has been successful, and other methods, such as burning, digging out the roots, mowing, and applying herbicides, are costly and time-consuming. While small stands in a residential yard can be controlled or eliminated by regular mowing and/or covering with black plastic, large stands require much more concerted effort.

A useful resource for native plants to use in coastal landscaping in North Carolina is *Native Plants for Coastal North Carolina Landscapes*, available at http://www.northinlet.sc.edu/beachvitex/media/NativePlantsCoastalNC.pdf.

Go Native!

*Thanks to Jim Butcher’s *The Dresden Files* for the column title.*
Triad Chapter

By Judy West

Greensboro decided to celebrate Earth Day early! Therefore, on April 8, Marie Noel, Deborah Staves, Lynda Waldrep and I manned a table at the Kathleen Clay Edwards Library. Children and adults learned about solitary bees, and made bee condos to take and install at their homes. The condos were made using bamboo, an alien invasive species (something good coming from something bad).

Participants chose 10 lengths of bamboo with assorted inside diameters. With the help of the volunteers, rubber bands were placed around the bundles, then the bundles were tied in a couple of places to secure them. There are many websites out there about how to build easy solitary bee homes. I think this one is pretty good:

http://www.fs.fed.us/wildflowerskids/activities/beebox.shtml

In addition, each bee condo owner received a list of bee- and butterfly-friendly native plant species, a list of books available at the library, and instructions for installing the condos once they returned home. It proved to be a popular activity and so was cut short due to the fact we ran out of supplies! As it was, more than 70 condos went to participants’ homes.

For those who missed making pollinator homes, another activity was to draw a pollinator in a flower cut-out, fold the petals over the middle in sequence, and place the flower bud on top of water in a basin. The flower would “magically” bloom and show the pollinator. The website below has a version of the flower activity, and also many, many other fun and educational activities.

http://www.arvindguptatoys.com/toys/

Other recent Triad Chapter activities have included six spring nature walks led by NCNPS and Audubon member Ann Walter-Fromson. The walks were well-attended and Ann’s vast knowledge of plants helped many people learn new tricks to help with IDs. She also shared titles of favorite books and a few websites to assist others in expanding their knowledge.

Thanks to member Carole Madan, who now resides in Georgia, we learned about some acreage that had been clear-cut in northeastern Georgia. It is unclear what is going to happen with this tract, but the owner gave us permission to rescue plants from the property since most are shade plants and therefore will not survive the intense sun and lack of topsoil. Four rescues with over a dozen members have been undertaken to date with plants going to the Audubon site in Greensboro and the Emily Allen Wildflower Preserve in Winston-Salem, as well as into private gardens.

NCNPS member Marie Noel helps children ‘bee kind’ to pollinators. —Lynda Waldrep

beeinflower.html
South Piedmont Chapter

By Beth Davis

A huge Earth Day thank you to all of the NCNPS members and friends who volunteered for Earth Day at SIX locations this year! Christy Larson, Jane Srail, Bernice Turnipsee, Wendy Parker, Margaret Genkins, Carrie DeJaco, Vicki Jo Franks, Theresa Morr, Maureen Gilewski and Damon Houghton all contributed their time and talents. NCNPS booths sold Salvia coccinea and Rudbeckia triloba in several places to new and interested native plant enthusiasts.

If you have a community, scouting, neighborhood, school or faith community event and would like to provide information, contact me. We have signage and quantities of brochures ready to share. And it’s not too early to think about Earth Day 2017! We have the materials ready…all we need is YOU! Follow us on Facebook—North Carolina Native Plant Society-South Piedmont Chapter. Contact me at ncnpsspchapter@gmail.com
Confessions of a Rank Amateur

By Julie Higgie

They say life is a journey with a lot to learn along the way. And believe me, this grandma is still learning so much about the amazing world of nature, thanks to our NCNPS! I am thrilled to announce that my modest Mooresville garden is now official Native Plant Habitat Number 53. This is a goal that my husband Don and I have been working toward for the nine years we have owned our shady, waterfront property.

It all started about 14 years ago in another neighborhood when I went on the National Wildlife Federation’s website and saw the Certified Wildlife Habitat program. Started in 1973 as an education initiative called the Backyard Habitat Program, its goal is to help property owners benefit endangered wildlife by making sure their yards include Food, Water, Cover and Places to Raise Young, as well as to follow Sustainable Gardening Practices. All of these steps I had been following through the years anyway, so I went ahead and certified our property. Then I took a bigger step by being trained as a NWF Habitat Steward by volunteers of the NC Wildlife Federation.

You can see how all this would lead me straight to the NCNPS. I wanted to make sure my wild friends had all the benefits that native plants could offer! It was then that I discovered there was actually a state organization dedicated to that goal, and so I joined.

But as any amateur plant-lover knows, identifying the correct plants to use on your property can be a huge challenge! First, where do we find them? What are their requirements? It became a great pastime, choosing and installing plants, when we moved to our current home in an older neighborhood in 2007. So I relied on information from the NCNPS newsletter, website and our local chapter to further my education. I also enrolled in the UNC Charlotte Native Plant Studies Program founded by Dr. Larry Mellichamp and the Society.

Since our backyard is a heavily shaded, steep hill, Don and I spent a lot of time terracing that hill and installing garden paths lined with stone. I discovered, when we bought the property, that the former owners had left the back hill wild. As I walked around it, I noticed that many native plant volunteers had somehow taken residence between such "enemies" as Japanese Honeysuckle and English Ivy. I had to identify the invasive non-natives, remove them by hand, and encourage the natives. It was quite a job! And in the front yard, we replaced most of the lawn with natural areas.

All of these factors led to having the lovely garden that Don and I enjoy today, along with a multitude of birds and other wild critters. Not
Amateur (cont.)

that there weren’t a few rough patches along the way.

For example, when recently I took a branch of the shrub I believed to be some kind of native holly into the Advanced Botany class at the university, Larry swiftly informed me it was, in actuality, an invasive Burning Bush! Well guess what? That Burning Bush wasn’t there for long. I went straight home after the class and told my husband that the (very large and actually not too bad-looking) shrub had to go. So together, we cut it down and piled its branches onto one of our brush piles (useful for sheltering birds and small mammals from bad weather).

I could practically hear that poor shrub calling out, “What did I do wrong?”

Then we drove up to our favorite local and reliable grower, Turtle Creek Nursery, and purchased two female and one male holly: Winterberry (*Ilex verticillata*). Lesson learned!

We found a couple of other mistaken identities during our Native Plant Habitat certification process, and are thankful to program coordinator Carolyn Ikenberry for kindly pointing those out on our application. (An experienced gardener told me that Bugleweed is a native plant! Honest!)

Are you ready to certify your garden as a Native Plant Habitat? You can find an application on the Society website, and you can also contact Carolyn at carolyni@ncwildflower.org or 919-967-6796 to ask any questions about the process.

I Spy.......Summer Flowers!

By Mark Rose

With the advent of summer comes the first of our native milkweeds to flower. These are all wonderful host plants for the Monarch Butterfly. Two of the first to flower at the end of May into June are *Asclepias variegata* (Redring Milkweed) and *A. quadrifolia* (Fourleaf Milkweed) both of which grow in shady to partially shady locations. If you have an area at woods edge, these two species will do well for you. The next two, *A. amplexicaulis* (Clasping Milkweed) and *A. tuberosa* (Butterfly-weed) both like locations out in the full sun to flower well. Plant some milkweed to help the plight of the Monarch Butterfly!
Why Planting Wildflowers could help feed the world

By Catherine Elton

(Edi tor’s Note: This article is used with permission from Conservation Magazine, an independent science magazine published by the University of Washington. Visit www.conservationmagazine.org)

Many studies have shown that planting strips of wildflowers amidst croplands can help replace some of the biodiversity that is lost in the quest to feed a growing, global population. More recently, studies have demonstrated that the increased biodiversity found in these strips includes species of insects and birds that act as an all-natural pest control, reducing or eliminating the need for pesticides.

How these strips affect crop yields, however, has been largely unexplored. That’s the topic researchers tackled in a study published recently in the journal Agriculture, Ecosystems and Environment. They found that the presence of nearby perennial, species-rich wildflower strips increased winter wheat production by 10 percent as compared to control fields.

“Farmers care about biodiversity and they likely also know about the importance of natural enemies of crop pests,” said lead author Matthias Tschumi. “But what is mostly decisive for the farmer is what he gets in terms of yield at the end of the day.”

Scientists from Agroscope, the governmental Swiss Centre of Excellence for Agricultural Research, conducted the research on Swiss winter wheat fields, which are often plagued by the cereal leaf beetle—a major pest in Europe, Asia, and parts of North America. They took advantage of the many farms that have implemented wildflower strips as part of a government subsidy program that aims to boost biodiversity on farm lands.

The researchers selected 10 pairs of fields that were similar in terms of their landscape and how they are managed. In each pair, however, one field was adjacent to a previously established wildflower strip and the other to a crop field. (Pesticides were not used on any of the fields.) Over the course of a few months, they measured cereal leaf beetle eggs and larvae, crop damage and crop yields, at 5 meters and 10 meters from the border of the wildflower strip. They found a 44 percent reduction in beetle eggs, putting it under the threshold for pesticide application, a 66 percent reduction in larvae, and 40 percent reduction in crop damage, all at 5 meters. Crop yields, however, increased at both the 5 and 10 meter marks.

The wildlife strips provide habitat for natural predators of other known wheat pests, so reductions in pests other than the cereal leaf beetle—not measured in this study—may have contributed to the increased yields, Tschumi said.

While Tschumi said he was surprised at how big of an effect they found on crop yields, the paper did not take into account any losses in yields that farmers would incur if they set aside arable lands for wildflower strips. He also cautioned that while the range of effect of 10 meters is significant for the scale of Swiss farms, it may be “rather ridiculous” for the scale of many American farms. That said, some of the natural predators present in the wildflower strips are highly mobile, he said, and effects may well extend to greater distances and should be assessed in future studies.

Even still, Tschumi hopes that the findings in this study, which constitute a win-win for biodiversity and farming, will sway more farmers to incorporate wildflower strips into their farm lands.
Thank you to Lisa Tompkins of the South Piedmont Chapter for sharing her lovely photos taken at her chapter’s outing to the NC Sandhills Gamelands in Hoffmann, NC.
Meet Dr. A.J. Bullard of Mount Olive, a longtime participant in the Margaret Reid Chapter, but also active in other chapters including the SE Coast. A retired dentist, Dr. Bullard owns a farm in Mount Olive with a large collection of native and exotic fruit, as well as rare natives. He’s had people from around the world come to visit his property.

“I appreciate nature in all of its components,” said Dr. Bullard, adding that “I was in the dental profession for 28 years but botany was my alter ego.” As a child, his uncle introduced him to plants and birds. When he was 10 years old, back in 1949, young A.J. regularly sent plants to the herbarium at North Carolina State University for identification. Through the years, “I went through countless directors and assistant directors before they found out I was a child.”

Dr. Bullard confesses that he never took a bonafide class in botany until after he finished dental school. Then, he only took classes “for fun.” He continues to study plants, especially his favorite ones—woody plants. As a volunteer, he teaches Master Gardener classes and is “on call” in three counties to help teach about and identify plants. He’s also in his 11th year of teaching courses in agriculture and other topics at the University of Mount Olive.

This longtime NCNPS member named the Mountain Laurel as his favorite native plant. Not just a mountain species, the Mountain Laurel can be found in 45 sites in Sampson County, Dr. Bullard said. “When I read The Manual of the Vascular Flora of the Carolinas in 1968, it sort of made me mad because they didn’t even mention it (being near the coast). I’m working to get the truth out.”

Thank you for your help, Dr. Bullard!
Welcome New Members!

Wilson's Natural Landscaping, Locust
Janet Link, Charlotte
Amanda Chapman, Wilmington
Charlotte Moore, Cincinnati
Ann Rowell, Bakersville
Michael Marshall, Greensboro
Sandra Reynolds, Durham
Marilyn Nelson, Lake Lure
Logan Williams, Raleigh
Benjamin Deloso, Chiniquapin
Sharon Dyrkacz, Oak Ridge
Della Page, Kernersville
Ruth Wadsworth, Davidson
Scott Geyer, Charlotte
Janet Denk Family, Matthews
Linda McDermitt
Lorraine Carpenter, Charlotte
Cindy Hemenway, Saluda
Ron Wails, New Bern
Emily Whiteley, Morganton
Kelvin Taylor, Pineville
Beth and Robert Nathan, Sapphire
John Stephens, High Point
Jim Smothers, Greensboro
Connie Cooper, Hendersonville

Membership Campaign!

These new members, brought in as part of the S. Piedmont Chapter's Membership Incentive Campaign, were recent participants in the UNC Charlotte Botanical Gardens' Certificate in Native Plant Studies. NCNPS is grateful to UNCC's support of the Native Plant Society in many ways, including promoting membership, co-sponsoring a joint moss program to certificate participants and NCNPS members, and providing materials for Salvia coccinea pots and Rudbeckia triloba pots to promote NCNPS at Earth Day events in the Piedmont.

Andy Anderson
Nancy Baird
Kris Benshoff
Claire Burnham
Rhonda Cato
Betsy Cooke
Cathy Croy
Jamie Dunleavy
Lindsay Dyer
April Faucette
Sharon Fisher
Doreen Francois
Elizabeth Gellgud
Angela Sutton
Ruth Fuller
Cathe Hawley
Cameon Holt
Mariah Huffman
Thanh Huynh
Liz Lewis
Cindy McIntosh
Teresa Melvin
Ed & Marianne
Moyers
Kay Peninger
Julia Priester
Amanda Rankin
Jaig Rourke
Melanie Salzman
Marie Schroeder
Ellen Sewell
Linda Shearhouse-Skeen
Julia Soto
Richard Sowden
Liz Wahls
Ricky Watson
Gail Whitcomb
Felicity Wray
Jillian Young
We’re Wild About Natives!