



The Native Plant Society of New Jersey E-News

President's Corner

This year certainly has had its challenges. I am so thankful that we just got in our Spring Annual Meeting and our interim President Joe Alvarez, who was in charge of the Philadelphia Flower Show, also just squeaked in his show. Even though he was super busy Joe stepped up to the plate when our former President John Black was forced to resign due to health concerns. The Society owes a lot to both of these hard working men. We were shocked to hear of John's passing this May. A tribute to him can be found below in this newsletter.



We also owe a debt of gratitude to our webmaster Millie who took on the challenges associated with the many levels of producing Zoom Webinars. Our thanks in addition to Deb Ellis who helped line up speakers for our first 5 webinars. Without these online programs we would have lost a lot our connectedness and continuity. Our last webinar had over 350 viewers which is the largest audience ever for a NPSNJ presentation.

This Newsletter is another means to maintain contact. We hope you will enjoy it! To make it a useful communication tool we need your input. Send me your native plant stories, plant photos, and poems to share with the rest of the Society. Together we can revel in the marvels of creation and the almost limitless strategies, chemicals, and mechanisms which work together to maintain plants in a very hostile world.

Tired of staying home? Get out and explore God's green earth. First check out the federal, state, county, and city parks. Next look up all the conservation associations such as The Nature Conservancy or D&R Greenway etc. We have been to many of these private sites, which are open to the public, but are sometimes so little known that we are the only people in a 300-1,000+ acre preserve. Look up 2 or 3 sites which are close to each other and be prepared to select an alternate site if your first choice is too crowded. With a little work on finding botanical gems you too can break out of your Covid-19 prison.

Yours,

Hubert Ling
president@npsnj.org

IN MEMORIAM: John Makoto Black

John was president of the Native Plant Society of New Jersey for four years. On May 22nd, 2020 John Makoto Black, loving husband and father, passed away in Browns Mills NJ, at the age of 58.

The Society owes a debt of gratitude to John, who worked tirelessly on our behalf and shared with us his great love for his favorite creatures,

dragonflies. John was extremely hard working; he would work long hours at his engineering position, rush around the state giving lectures, and work on several NPSNJ projects all at the same time.

John's wisdom and compassion held the NPSNJ together at a critical time and we have been on much firmer ground because of his tenure.

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Backyard Wilderness

By Hara Rola
Jersey Shore Chapter

My suburban neighborhood is densely packed with houses but there is a good amount of vegetation to offset the development. I am thankful that trees, along with other plant life, are valued where I live in Haddon Township. I keep my small yard natural with many trees, shrubs, herbaceous perennials, and herbs. I have created a small wild world right outside my door.



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Planting a Tree to Save the Planet? Try American Sweetgum *Liquidambar styraciflua*

By Marilyn Fishman
Rancocas Chapter

The World Economic Forum, held in Davos January 21-24 2020 announced the creation of the One Trillion Tree Initiative platform for governments, businesses, and civil society to provide support to the [UN Decade on Ecosystem Restoration](#) (2021-2030), led by the United Nations Environmental Program (UNEP) and Food and Agriculture Organization of the United Nations (FAO).



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Creating a Meadow

By Susan Haake

Hunterdon Chapter Co-Leader

How hard could it be?

The Joseph Turner House Museum in Hampton overlooked a half acre field of 8' invasive weeds and it seemed like the perfect location for a meadow of native wildflowers. The focal point is a historic spring house and beyond that is small lake with a hiking trail around it. I volunteer at the Museum and wanted to do something to make the surroundings more attractive and a place where our visitors could learn about our native plants.

For a quick video of the project:

<https://vimeo.com/channels/1616736>



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Meet the Potential Tree...maybe

Great Blue Lobelia

Lobelia siphilitica

By Hubert Ling

Our native great blue lobelia, *Lobelia siphilitica*, is a short lived perennial which produces dense spikes of showy bright blue flowers in September. It is a member of the bellflower family which has 2,400 species around the world, most of which are small herbaceous plants. However, in Hawaii there is evidence to indicate that about 13 million years ago a single species of lobelia, perhaps similar to great blue lobelia, arrived at the islands and started to colonize the developing archipelago and eventually became 125 species currently placed in 4 distinct genera.



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Exploring the Pine Barrens, South Jersey's Natural Treasure

By Becky Laboy

Jersey Shore Chapter Co-Leader

The Pine Barrens of New Jersey is truly a special place. It stretches across 7 counties in the southern region of our state. In 1978, Congress established the Pinelands



National Reserve, an area encompassing over 1 million acres of this unique ecosystem – the largest of its kind in the world. This article is the first in a series about the unique plants of the Pine Barrens.

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Cardinalflower and Ruby-throated Hummingbirds *A Perfect Partnership*

By Mary Anne Borge

Naturalist for Bowman's Hill Wildflower Preserve

From late July to early September, Cardinalflower's (*Lobelia cardinalis*) brilliant scarlet blossoms beckon to thirsty little Ruby-throated Hummingbirds like a neon sign to a hungry traveler, promising a long satisfying drink.



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Unique Find

By Dawn Pogosaew

Hunterdon Chapter Co-Leader

This past April, I found a leaf at Whittemore Park in Tewksbury Township. I had never seen it before so I decided to cage it so the deer wouldn't eat it, just in case it was a unique find. I waited...and waited...and waited until finally at the end of June it bloomed! Hubert and Mille Ling identified it as a Ragged Fringed Orchid, *Platanthera (Habenaria) lacera*. Since then, I have found several more. So next year, when I find that single leaf, I will cage them all and try to form a small colony of them.



English Ivy League

By Hara L. Rola

The back wall



a green tsunami
of never ending leaves
a surge of vines
that flow everywhere
covering
whatever
is in its path
slowly choking life
out of trees
shrubs, blooms...
arrived pre-revolution
came with the colonists
a three hundred year
British invasion
non-stop...
taking over
trying
to gobble up
the whole earth

Wonderful Wednesday Webinars



August 12, 7:00-8:00 PM

Wildlife-Friendly Native Shrubs & Trees for Your Backyard

with Becky Laboy

Trees and shrubs are a necessary component of a wildlife-friendly yard. Together with your flowering perennials, they offer habitat in the form of nesting places, cover and food for birds, mammals and pollinators. We will explore some native trees and shrubs you can add to your New Jersey backyard, and discuss how they support the web of life. Becky Laboy volunteers her time as co-leader for the Jersey Shore Chapter of the Native Plant Society of New Jersey.

Click to read [Becky's bio](#).

Registration is Required

**PLEASE NOTE: -- Remember to join early.
Registration is required but does not
guarantee entry into the webinar if
maximum capacity has been reached.**

Questions?

email: JerseyShore@npsnj.org

[Click Here to Register](#)



September 16, 7:00-8:00 PM

Deer Resistant Native Plants For Your Garden

With Mike Van Clef

This talk goes over various landscape uses for native plants ranging from meadow patches to formal gardens. It focuses on selection of native plants based on their functions (e.g., screening, foundation plantings, plants for shade, etc.), emphasizing the value these plants provide to birds, bees and butterflies — contributing to increasing the health of our natural world. The talk also covers how to select deer resistant plants and develop creative ways to protect any native plant from marauding deer.

Click to read [Mike's bio](#)

When available, registration details will be on our website: www.NPSNJ.org

Thanks goes to Susan Haake for putting this together

Native Plant Society of New Jersey | Office of Continuing Professional Education, Rutgers University -
Cook College, 102 Ryders Lane,
New Brunswick., NJ 08901

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The Native Plant Society of New Jersey

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IN RECOGNITION OF:

JOHN BLACK



It is with heavy hearts that we share this article. John was president of the Native Plant Society of New Jersey for four years. On May 22nd, 2020 John Makoto Black, loving husband and father, passed away in Browns Mills NJ, at the age of 58.

John became president in March 2016, bringing new vigor, energy and enthusiasm and leaving a lasting impact on the Society. Under his calm and steady leadership, the Society flourished. John made everyone feel they had a stake in the expanding purpose and mission of the Society.

As the president, he led the NPSNJ into a bold era, strengthening our chapters, and boosting membership. John had a demanding full-time job and was a devoted father, but he found the time to work tirelessly on the Society's behalf, traveling the state to present lectures, open new chapters, attend events, and share the Society's mission, to promote the protection and appreciation of native plants. To many of us, our acquaintance with John via the NPSNJ turned into an enduring friendship. We will surely miss John's patience, kindness, and zest for

life. John was a real champion for all nature, but especially for the unique and beautiful native plants of his beloved home, New Jersey.

In 2019, John stepped down from being president for health reasons.

Thoughts from Members of our Society:

"Very sad day- even the heavens are weeping today. John was such a humble, kind, and caring person. He was very generous with his time and knowledge and sharing so much with us all. He always went out of his way to welcome and make people feel at ease! I will truly miss him..." (RB)

"The dragonfly whisperer." (MJ) Photo to the right shows John with a dragonfly on his thumb.

"I'll always remember John's talk "There Be Dragons!" John went out of his way to help all of us at one time or another. It was always a pleasure to see Christine and John together and to enjoy their enthusiasm for the society." (MD)

One of his many times, on March 30, 2017, at the Hunterdon Chapter, John gave his famous talk. Here was the announcement:

"There Be Dragons

Come and learn about these amazing and misunderstood creatures that patrol our ponds and waterways.



John has been fascinated by dragonflies his entire life. He admires them to the point of creating a habitat in his yard just for them and has spent many hours studying them from that habitat. John has lost many hours of sleep watching them emerge and missed many meals studying their behavior. His program explains the many features and behaviors that make these insects so wonderfully amazing and beneficial."

Right photo - John was presented with a dragonfly suncatcher by the Hunterdon Chapter as a token of thanks for speaking at their meetings, helping out at Krajci, and making NPSNJ such a viable and effective organization.



"Let's not forget all that he did for us!" (JC)

"I have been in the Native Plant Society since 1999. NO ONE has contributed more during that twenty year term. He brought the NPS into the twenty first century. As we stand today, Native Plant Society is a FORCE in New Jersey. He was a leader in the true sense of the word—he took the credit for nothing and the blame for everything. I am still in shock, knowing how healthy and athletic John was. He would ride his bike hundreds of miles at a clip. With deep sadness," (BY)

"... A tremendous loss. John had such a deep connection to nature and amazing storytelling skills that he used to share his love of nature with others. I feel lucky to have known him and work with him through the Native Plant Society." (KW)

"John's wisdom and compassion held the NPSNJ together at a critical time and we have been on much firmer ground because of his tenure. Paradoxically the world is a little darker because of his passing.(HL) "

"I am stunned and saddened that we have lost our friend and greatest advocate for native plants and a better environment. We will so miss him." (SH)

"Very sad news and a tremendous loss. John had such a deep connection to nature and amazing storytelling skills that he used to share his love of nature with others. I feel lucky to have known him and work with him through the Native Plant Society." (KW)



"We at the Essex Chapter feel incredibly saddened by John's passing. We are grateful that he helped us to set up our chapter, driving many miles for a long meeting with us in September 2018, giving advice by email and text, and then delivering our opening lecture in March 2019, "Plight of the Pollinators," which was a huge success and attended by over 130 people.

His passion for native plants and all of Earth's creatures taught so many to help heal the Earth through the gardens we create. His legacy will inspire us for the rest of our lives.

John will be missed but not forgotten. "

"So very, very sad. He was such a kind and extremely generous soul. My heart breaks for his family." (RE)

"John's passing is a tremendous loss. He was such a kind soul." (BL)



John was talented in so many ways. Photo shows him carefully putting together the new permanent sign which he hand crafted for the Krajci Preserve .



With John, Christine also contributed to the NPSNJ. Christine took over leadership of the Rancocas Creek Chapter to fill the vacancy. She also ran the Society store making tee shirts and hats.

More about John:

John was born June 13th, 1961 in San Diego, CA. He went to High School in Texas, studied physics at Texas A & M University, and served in the United States Navy on a submarine tender stationed in Scotland. After his service he worked as a CNC programmer and machinist. John was a Master Naturalist for the State of New Jersey and a Certified Interpretive Guide. He served on the board of the New Jersey Audubon Society, and as the President of the Native Plant Society of New Jersey.

He gave talks on dragonflies, spiders, native plant gardening, the moon, and hosted storytelling campfires. Oftentimes he would stop whatever he was doing to follow a butterfly across a field, or save a spider from a busy corridor. It was always his hope that through his programs he could inspire others to give back to or even just appreciate nature a little more.

John loved the outdoors, and explored wild places every chance he got. He loved backpacking and camping, rock climbing, swimming, cycling, canoeing and kayaking. He spent several years as a volunteer for the BMIA helping them map, and explore federal lands in New Mexico, Arizona, and Utah. He also volunteered with several wild life rescue groups, saving all sorts of animals. He cared for orphaned baby raccoons, skunks, and crows. He loved to juggle, knew how to surf, ride a skateboard, and loved playing backgammon as well.

John married Christine McCullough in June of 2014 and adopted her two daughters (Armida & Alicia). They had a really nice life together, full of magic, happiness and adventures. John will be remembered for his quiet calm demeanor, his love of insects and nature, his sense of humor and love of practical jokes, his athleticism, and his respect for all things living. John was the kind of person who went out of his way to help a stranger without being asked and every person who he came into contact with could feel the passion with which he lived his life.

John was preceded in death by his mother Chieko, father William, and brother David. He is survived by his wife, Christine Black, son Christopher Dresh, and daughters Brianna, Armida, and Alicia Black.



"In sorrow, remembrance, and love, we honor John who lived a truly inspired life." (ML)



Backyard Wilderness

By Hara Rola

My suburban neighborhood is densely packed with houses but there is a good amount of vegetation to offset the development. I am thankful that trees, along with other plant life, are valued where I live in Haddon Township. I keep my small yard natural with many trees, shrubs, herbaceous perennials, and herbs. I have created a small wild world right outside my door. When I step into my 60 by 120-foot yard, I am surrounded by an abundance of drought resistant native perennials that I have planted, which include Purple Coneflower, Black-Eyed Susan, New England Aster, Creeping Phlox, Yarrow, Sun Drops, Wild Pink, Marginal Wood Fern, Jacob's Ladder and Milkweed. My herb garden, which boasts a delicious mix of Lavender, Chives, Wild Bergamot, Oregano, Thyme, Sage, and Lemon Balm, plays host to a variety of pollinating insects as do my other flowering plants. Then there are the native plant species that have shown up on their own such as Snake Root, Wild Rose, Violet, Pearly Everlasting, Goldenrod and Clover. They have made themselves at home in my garden beds and lawn, and I welcome them, allowing them to thrive alongside with what I have planted.

My goal of maintaining thick dense flora is to attract and shelter wildlife thereby creating a mini-wild habitat. Many wildlife families seem to thrive in my miniature preserve: Chipmunks and Carpenter Bees make a home within my deck. Sparrows nest in the holes on my garage door trim, compliments of squirrel renovators. Cardinals, Catbirds, Wrens and other birds tend to use my hedge, brushy shrubs, and

Sweet Gum and Northern Red Oak trees for nesting. It is delightful to watch the fledglings as they learn about and integrate into the world. I enjoy watching them as they teach their young how to fend for



My motivation to host native flora and fauna is to support the local ecosystem and create a microcosm of larger natural tracts.

themselves. Also each spring, young rabbits scurry through and feed from my gardens; their dens are in the brushy portions of the yard. My silver maple has hosted a raccoon family whose little ones were just as curious about me as I was about them. A small flock of Goldfinches arrives every summer, like clockwork, to feed on the seeds of my numerous Purple Coneflowers. Now and then I have seen an opossum and groundhog waddle through my yard. I have spotted moles, field mice and the populous gray squirrel. I appreciate the presence of wildlife and believe people should accommodate their needs whenever possible since they are under great pressure from human activity and widespread settlements.

Beyond what is readily visible, there are a myriad of insects and spiders nesting, reproducing, and making a living throughout my

yard. The large variety of pollinators that visit my perennials include Bumble Bees, Honey Bees, Digger Wasps, Eastern Tiger Swallowtail butterflies, Painted Lady butterflies, and Dun Skippers. There are the usual ants, aphids, beetles, worms, caterpillars and a variety of other insects are plentiful seasonally. I do not use any pesticides or other outdoor chemicals. I do not want to harm the insect populations, most of which are beneficial, nor poison the environment and other wildlife. Birds, spiders, predatory insects, and small mammals act as natural pest control. I believe in letting nature tend itself to maintain diversity and balance. Every creature has its place, its purpose, including man. I believe the human race needs to reevaluate its current role in the natural world and revert back to living more in harmony with it as much as possible. That goal can be partially achieved by creating a native plant backyard wilderness.

Ideally, if all persons with property, no matter what the size, hosted native flora and fauna, the ecological collective support would multiply thereby sustaining a larger number of wildlife and valuable plants. People would benefit too. Benefits include: decrease of carbon dioxide, erosion prevention, safe natural pest control, conservation of water and less expense for gardening materials and equipment. Other benefits for all include: cleaner air, water, and soil as well as an abundance of pollinators, other insects, birds and small mammals. By making my whole yard into a nature sanctuary, it becomes one for me as well. Mother Nature thanks me by spreading my perennials, gifting me wild flowers, bringing me the music of birds and insects, and showing off her bounty of wildlife every day.

The American Sweetgum Tree

By Marilyn Fishman



The 2020 World Economic Forum, held in Davos announced the creation of the **One Trillion Tree Initiative** platform for

governments, businesses, and civil society to provide support to the UN Decade on Ecosystem Restoration (2021-2030), led by the United Nations Environmental Program and Food and Agriculture Organization of the United Nations. The goal of the United Nations Decade on Ecosystem Restoration 2021-2030 is to balance ecological, social, and developmental priorities in landscapes to foster long term resilience.

A paper presented at the American Association for the Advancement of Science in 2019 suggested that planting 1.2 Trillion Trees could cancel out a decade of CO₂ emissions. However, as an ecologist from the University of California Santa Cruz warned in the May 8 issue of *Science*, these campaigns take simplistic view of tree-planting as a panacea for environmental degradation. **To be effective the right tree needs to be planted in the right place with concrete plans for long term care and management.**

When selecting a tree, one consideration is the USDA hardiness zone. Trees can live a long time and as the earth warms, the hardiness zones are changing. New Jersey is currently divided into four different planting zones. From North to South they are: 6a, 6b, 7a, and 7b according to the 2012 USDA map (the 1999 map listed the zones from 5a to 6b). One tree that will fit the current and future



NJ hardiness zones is the American Sweetgum *Liquidambar styraciflua* which is suitable for zones 5-9.

The American Sweetgum is native to Connecticut south to Florida and west to Texas. The tree is also found in parts of Mexico. Both the genus and common names refer to the juice or gum exuded from the tree. The genus name was bestowed by Linnaeus in 1753 from the Latin *liquidus* (fluid) and the

Arabic *ambar* (amber) in honor of the exuded juice. The tree can be considered a living fossil. There are twenty known extinct species with the oldest being found in the Upper Eocene rocks of Greenland (when Greenland was really green having a subtropical climate).

The Cherokee, Choctaw, Koasati, Rappahannock, and other Native American tribes used the Sweetgum for various medicinal purposes in addition to chewing gum. These uses include coughs, wounds, fevers, colic, diarrhea and dysentery. Scientific research into the medicinal properties (reported in the *Pharmacognos Review* in 2015) confirms many of these traditional uses. Of special interest these days are its antiviral properties.

The American Sweetgum is a large tree. It can grow 50-70' in cultivation and up to 150 feet in the wild where it can live for up to 400 years, (usually 150 in cultivation). The tree prefers moist, slightly acidic loam or clay. In the wild it grows with willow oak and sweetbay magnolia and other coastal plain species. The star-shaped leaves are a shiny dark green which turn brilliant orange, red, and even purple in the autumn. The flowers are not notable. The fruit is notable, as you might have noticed if you walked near one. The spiky balls remain on the tree for a long time after the seeds have dispersed. Difficult as it is to believe, people actually try to sell those goblin balls on Etsy. The seeds are popular with gold and other finches, Carolina chickadees and wrens, mourning doves, wild turkeys, chipmunks and squirrels.

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Creating a Meadow...

By Susan Haake

How hard could it be?

The Joseph Turner House Museum in Hampton overlooks a half acre field of 8' invasive weeds and it seemed like the perfect location for a meadow of native wildflowers. The focal point is a historic spring house and beyond that is a small lake with a hiking trail around it. I volunteer at the Museum and wanted to do something to make the surroundings more attractive and a place where our visitors could learn about our native meadow plants.

The plan was to get out all the invasive weeds, then seed for wildflowers and have trails that would lead to the Spring house and connect to the hiking trails.

After discussions with various mentors, like Joyce Koch of the NJ Invasive Strike Team and NPS member, the vision was perhaps more difficult to achieve than I had hoped. Eight foot high weeds would be hard to exterminate. Maybe I was setting the bar a bit high.

I took the class "Creating a Meadow" at Duke Farms, which was taught by Jared Rosenbaum and David Hughes. They provided plenty of inspiration and a good nuts and bolts lesson on how to do the project. Duke Farms has a lovely meadow where we walked and talked about the various meadow plants. But then Duke Farms has hundreds of volunteers and I had me, my friend Jane Kicenuik and my husband, Bob.

The first step was getting a permit to work in the area and spray herbicide from the owners of the property: The State of NJ, Fish and Game .

I was also working with the Natural Resources Conservation Service



(NRCS) and based on their recommendation our plan was to spray two rounds of herbicide and seed in the fall of 2016. But after spraying, different weeds came up. We had an invasion of HUGE mulleins. Then an invasion of Chinese bush clover and mugwort, followed by Horsetail, Canadian thistle and Autumn Olive. We rented a DR mower and tried mowing a couple of times, and then spraying. Jane brought over her giant tractor. It just seemed endless.

NRCS said we needed to get down to the soil so the seed would have good seed to soil contact. Herbicide wasn't the answer.

We decided to do a test area and tarp it for the summer and seed it in the fall. If we were successful, we would then tackle the entire half-acre field. So in the fall of 2018 we pulled up the tarp, raked up the area and spread the seed. We used the Ernst Seed New England Wildflower Mix for Upland Meadows. Now all we had to do was wait the winter out and hope that in the spring we would have *something* besides weeds.



Bob and Jane mowed several times using Jane's big tractor, Jane's zero turn mower and then a brush hog. We sprayed 3 rounds of glyphosate.



In the Spring of 2019, we had a beautiful showing of Black-eyed Susans. So I decided to try tarping the entire area that summer. We were able to get several large pool tarps that were getting thrown out. We laid rocks, logs and cinder blocks on them. It looked atrocious, but if was just for one summer.

In the late Fall of 2019, we got several volunteers who were all members of NPS, Kathy Tarbach, Susan Nicolich, Mia Baldwin, and Carole Huber to come out for a seeding party. We pulled up the tarps and raked the area. Then I distributed the seed in different buckets with some sand and we lined up in rows and started spreading it. We rented a roller, and took turns pressing the seed in. I had gotten about a dozen compressed bails of straw and we started spreading it on top.

And that is the beauty of creating a meadow— there will be change in every season, and every year will be different.

This March 2020, we noticed the cover crop of winter rye filling in the entire area and underneath were the Black-eyed Susans starting to come up. The test area had different flowers coming up. Not so many Black-eyed Susans, but instead we saw Coreopsis, Narrow-leaved Mountain Mint, Agastache, Echinacea, Blue-eyed grass, Goldenrod, NY Ironweed, and Alliums. It wasn't lush with flowers, but mostly grasses as I had envisioned. And that is the beauty of creating a meadow— there will be change in every season, and every year will be different.

To see the project, go to
The Joseph Turner House
117 Van Syckles Road, Hampton, NJ

To see First Media's Video of the Seeding Day, go to
<https://vimeo.com/channels/1616736>



Meet The Potential Tree, ...Maybe

By Hubert Ling

Our native great blue lobelia, *Lobelia siphilitica*, is a short lived perennial which produces dense spikes of showy bright blue flowers in September. It is a member of the bellflower family which has 2,400 species around the world, most of which are small herbaceous plants. However, in Hawaii there is evidence to indicate that about 13 million years ago a single species of lobelia, perhaps similar to great blue lobelia, arrived at the islands and started to colonize the developing archipelago and eventually became 125 species currently placed in 4 distinct genera. This would be the most extensive speciation of any species on any island. Many of these plants are herbaceous but the largest grows up to 30'. It would be interesting to discover how many other herbaceous plants have latent genes which would allow them to grow into trees. Blue lobelia grows naturally from Canada to Texas and



Blue lobelia seeds are very small; thus it takes 6,400,000 of them to weigh a pound.

most every county. The plant generally grows to about 18"; however, if given ideal conditions in moist soil and sun the plants may reach about 6'. The plant is sometimes called blue cardinal flower and is difficult to distinguish from cardinal if not in bloom and you must be very careful when collecting seeds that you do not hopelessly mix up the two seed collections.

Seeding

Blue lobelia seeds are very small; thus it takes 6,400,000 of them to weigh a pound. Even though the seeds are minute the germination rate can easily be over 70%. Therefore you really don't need very many of them to fill up all available space in your yard. Most people only need a pinch of seeds, about the size of a match head. Mix these seeds with dry dirt, sand, or fine wood dust and sprinkle these in a flowerpot in fall. Don't plant them too deep or keep the winter mulch on too long since the seeds need light to germinate. Be sure to keep the soil damp since the seedlings are very sensitive to even a short period of drying out.

Propagation

The plant can also be propagated by splitting off the small plants which tend to grow at the base of large plants in fall; however be sure to go back to the reproducing plants by seed since individuals only live about 3-4 years.

Blue lobelia is relatively trouble free and rarely may even be aggressive but it is easy to control and you can always give away any excess plants. Although the plant grows best in partial shade in moist areas it tolerates a variety of conditions and is much easier to maintain than its spectacular cousin the cardinal flower. Blue lobelia tolerates deer, heavy shade, and a range of soil pH.



Lobelia in Medicine

The genus name (*Lobelia*) is in honor of the French botanist Matthias de l'Obel; the species name (*siphilitica*) is from the time that this plant was used by Native Americans to treat syphilis and other venereal diseases. Nineteenth century American physicians were not impressed with the success rate for curing syphilis and thought it might work better if combined with a few other medications but an effective, non-toxic cure for syphilis had to wait for the development of modern antibiotics. For the Meskwaki Nation of Iowa (Fox Tribe) blue lobelia was used as a love medicine to avert divorce; however, Foster and Duke assign a 'potentially toxic' warning to this plant and physicians found that it often causes vomiting and if taken in large quantities convulsions and coma; you might find that a box of chocolates would work better for your marriage.

Blue lobelia attracts hummingbirds, butterflies, and native bees. Use the plant to add color to your late summer garden; it is useful for a perennial border, native plant garden, or near ponds and streams. It can help stabilize stream banks and will self-sow if happy. Take a careful look at this plant as an addition to your garden; you will be richly rewarded.



Exploring the Pine Barrens, South Jersey's Natural Treasure

By Becky Laboy

The Pine Barrens of New Jersey is truly a special place. It stretches across 7 counties in the southern region of our state. In 1978, Congress established the Pinelands National Reserve, an area encompassing over 1 million acres of this unique ecosystem.

Bearberry

(*Arctostaphylos uva-ursi*)

Look for Bearberry, also called Kinnikinnik, carpeting the sandy soil along Pine woodland edges. This trailing, woody sub-shrub has thin reddish bark and numerous thick, shiny evergreen leaves. It's perfectly adapted for this full to part sun, well-drained habitat.



Clusters of small buds develop in early April.

They blossom into white or pink flowers shaped like little bells, characteristic of many plants in the Heath family (*Ericaceae*). They offer an early nectar source for native insects. Fertilized flowers develop into berries that ripen to a bright red in summer. The berries persist throughout the winter, offering a food source for wildlife.

Bearberry is quite common in the Pine Barrens. It is cultivated and sold as a wonderful low maintenance groundcover for yards with dry, sandy soil.

Goat's Rue

(*Tephrosia virginiana*)

Plants that live in the dry, sandy Pine Barrens require tenacity to survive! One such plant is Goat's Rue. This implacable perennial



grows from a combination of taproot and stout fibrous roots, forming a 1-2 ft. multi-branched flowering herb. Compound leaves are each divided into many smaller leaflets creating attractive feathery foliage.

The flowers are easily recognizable and seem almost too delicate to withstand the blazing sun and dry winds that blow across the Pine Barrens. Dense clusters of bi-colored flowers form at the tips of the branches. Each flower has a conspicuous yellow upper petal and bright pink lower petals. Bees and butterflies visit the flowers seeking nectar. Fertilization results in the development of long dry fruits - pea pods, which split open when ripe to disperse the seeds.

Characteristic of members of the Pea family (*Fabaceae*), Goat's Rue fixes nitrogen, giving itself a nutrient boost in its dry, nutrient poor, acidic sandy soil. Once established, Goat's Rue does not transplant



Explore!

Take a trip to the Pine Barrens and enjoy its unique natural beauty. Hike one of its many trails or canoe down a meandering creek.

well, so choose your garden site carefully! This often overlooked and underplanted native offers drought tolerance, deer resistance, and beauty in the backyard landscape.

Golden Club

(*Orontium aquaticum*)

Thriving in the tea-colored waters of Pine Barrens creeks and bogs is Golden Club, a perennial aquatic herb in the Arum family (*Araceae*). Rooted in shallow mud, it produces interesting flowers fused together on a yellow-tipped spike, or



spadix, atop a white scape, in late March through May.

Pollination is entomophilous - pollinated by insects, including small flies, bees and beetles. Bright green water resistant leaves offer contrast above the water's surface. Golden Club can be grown from seed in backyard ponds and water gardens.



Cardinal flower and Ruby-throated Hummingbirds

A Perfect Partnership

Text & Photos
By Mary Anne Borge

From late July to early September, Cardinal flower's (*Lobelia cardinalis*) brilliant scarlet blossoms beckon to thirsty little Ruby-throated Hummingbirds like a neon sign to a hungry traveler, promising a long satisfying drink.

Hummingbirds love bright tubular flowers shaped to accommodate their long narrow bills and tongues, a design that allows them to access the bounty that is out of reach to less compatibly designed diners. The birds learn that red flowers are especially likely to be a good nectar source, since bees, a frequent competitor for nectar, are red color-blind, and less likely to visit red flowers.

Cardinal flower blooms in tall flower clusters around a central stem. In order to maximize the chances of successful pollination (and by happy coincidence, our viewing pleasure), the flowers bloom over a period of many days or weeks, beginning with the lowest buds on the stem, gradually moving up until all the flowers have blossomed.

Ruby-throated Hummingbirds will likely be regular visitors to the flowers. When a bird inserts its bill in the center of the bright red corolla to drink, the top of its head is snugly capped by a long tube that arches above the flower's scarlet lobes, the flower and the hummingbird fitting so perfectly together that it looks like a custom tailoring job. In newly opened flowers, the tube is tipped with a fused set of stamens whose pollen-rich anthers brush the hummingbird's head, leaving a precious cargo of pollen for the little bird to take to the next Cardinal flower it visits.

As the flowers mature the stamens wither, succeeded by the female parts, the pistils, whose stigmas are now perfectly positioned to receive the pollen transported to them on the head of a hummingbird. As more flowers open, those lower on the stem are in the female stage, with flowers higher up male.

Cardinal flower produces more nectar in the lower flowers than in those higher up in a cluster.

Hummingbirds learn this, and are likely to drink starting with the high-reward flowers lowest on the stem, gradually moving up. The birds bring pollen acquired from male flowers at the highest point of

one plant to female flowers at the lowest on the next. Manipulated by the plant, the unsuspecting little bird carries out an essential service: pollination.

Some butterflies also visit the flowers for nectar, but they are less likely to help with pollination. Butterflies are not the perfect anatomical fit for the flowers that hummingbirds are; they only brush against the flower's reproductive parts by accident.

Cardinal flower is a short-lived herbaceous perennial, but it readily reproduces through seed resulting from its pollinated flowers. It typically grows to a height of two to five feet, and prefers medium to moist soil in part shade to sun. It works well in rain garden, a shade garden, or a sunny garden or meadow with moist soil.

This gorgeous gaudy plant with its bold blossoms is a wonderful way to entice Ruby-throated Hummingbirds to visit your garden.

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Butterflies, like this Spicebush Swallowtail may visit Cardinalflowers for their nectar, but they are not that likely to help with pollination.

Flowers lower in the cluster are in the female phase, those at the top are male of 17.