Native Plants for Rain Gardens

Emily DeBolt, owner Fiddlehead Creek Native Plant Nursery
Illustration by Doug Adamson, RDG Planning & Design

What is a rain garden?

A rain garden is a vegetated depression that collects stormwater runoff. Rain gardens are a great DIY project for homeowners to manage small amounts of stormwater on their own property. By directing runoff into the garden, the rain that falls on rooftops, driveways, and other impervious surfaces on your property infiltrates into the ground, recharging local and regional aquifers, instead of running off across the surface and eventually polluting local waterways.

Rain gardens are beneficial in many ways!

In addition to helping keep local waterways clean by filtering stormwater runoff, rain gardens also can help alleviate problems with flooding and drainage. Rain gardens are pretty and functional, enhancing the beauty of yards and communities and providing valuable habitat and food for wildlife like birds and butterflies when planted with native plants. Rain gardens can reduce the need for expensive stormwater treatment structures in your community.
Selecting Plants for the Garden

Since a rain garden is flooded periodically, you need plants that can live in both wet and dry conditions. Plants in the middle of the garden where it is deepest should be the most adapted to very wet conditions, being able to be inundated for short periods of time. Plants on the edges of the garden should be able to be briefly inundated. Be sure to stabilize the berm around your garden that holds the water with grass or dry-tolerant native plants as well.

Right Plant, Right Place

You should consider whether your site is sunny or shady when selecting plants. Remember – you need 6 hours or more of sun to be considered ‘full sun’. It is easiest to find plants that work well for rain gardens that need sun, so keep this in mind when planning out the location of your rain garden. Just like with any other garden, think about what variety of height, color, and blooming period you would like as well. Mix a variety of flowers, grasses, and sedges for different shapes and textures above and different root depths below the surface. Shrubs are great in rain gardens too if you have the space. Consider planting flowers in masses of color to attract birds and butterflies. Follow the tricks the professionals use and group plants in odd-number clumps, using 3, 5, or 7 of the same plants together. This way your rain garden not only stops stormwater runoff but also provides you with a beautiful landscape to enjoy all summer long. After you are done planting, mulch the garden. Don’t use bark mulch in the garden – it will float away. Hardwood mulches and pea gravel work well.

Native Plants for Rain Gardens

Native plants are a great choice for rain gardens. Planting natives helps protect New York’s biodiversity by providing food and habitat for birds, butterflies, and other wildlife. Natives have evolved in our environment over many years and many of our wetland and riparian species are adapted to alternating periods of wet and dry. The deep roots of natives absorb and filter runoff more effectively than the short roots of many turf grasses and other ornamental plants – making them a perfect fit for rain gardens!
Here are some plants native to New York that are great for rain gardens. (These lists are by no means exhaustive).

**For the very wet zone in the middle of the bottom of the garden**

- Blue Flag Iris (*Iris versicolor*)
- Buttonbush (*Cephalanthus occidentalis*)
- Cardinal Flower (*Lobelia cardinalis*)
- Common Boneset (*Eupatorium perfoliatum*)
- Ninebark (*Physocarpus opulifolius*)
- Northern Bayberry (*Myrica pensylvanica*)
- Red Twig Dogwood (*Cornus sericea*)
- Sensitive Fern (*Onoclea sensibilis*)
- Swamp Milkweed (*Asclepias incarnata*)
- Swamp Rose Mallow (*Hibiscus moscheutos*)
- Switch Grass (*Panicum virgatum*)
For the moderately wet zone around the edge of the garden

All plants from the very wet list above work here as well as:

- Blue Lobelia (*Lobelia siphilitica*)
- Cinnamon Fern (*Osmunda cinnamomea*)
- Cut-leaf Coneflower (*Rudbeckia laciniata*)
- Indian Grass (*Sorghastrum nutans*)
- Joe-Pye Weed (*Eutrochium fistulosum, E. maculatum, E. purpureum*)

- Marsh Marigold (*Caltha palustris*)
- Royal Fern (*Osmunda regalis*)
- Spicebush (*Lindera benzoin*)
- Summersweet (*Clethra alnifolia*)
- Swamp Azalea (*Rhododendron viscosum*)
- Turtlehead (*Chelone glabra*)
- Winterberry (*Ilex verticillata*)
- Woodland Phlox (*Phlox divaricata*)

If you’d like to learn more about rain gardens, check out these great step by step how-to manuals available online (just remember, their plant lists do not necessarily contain species native to New York).

- Rain Gardens: A how-to manual for homeowners.
- Rain Gardens: A design guide for homeowners in Connecticut.
- The Vermont Rain Garden Manual.

If you have questions about native plants for rain gardens, you can contact Emily at [Emily@fiddleheadcreek.com](mailto:Emily@fiddleheadcreek.com). Fiddlehead Creek Native Plant Nursery, in Hartford, NY, carries a wide selection of New York native plants for rain gardens.
Recently I was looking at species of Rosa in the New York Flora Atlas. When I looked at the genus I noticed that the genus map had Cortland County as the only county without a record of any species of Rosa. That made me curious to find out if any other common genera had been recorded in all but a few counties. I decided to look through Mitchell’s 1997 checklist and pick out common genera—ones that had one or more pages of species listed for them. I looked in the atlas at each one and recorded those that had fewer than 5 counties where no species had been recorded in the atlas. The genera are listed below in taxonomic order followed by the counties that have no records.

*Thalictrum* – Wayne
*Ulmus* – Allegany, Seneca
*Quercus* – Herkimer, Cortland
*Betula* – Seneca, Schuyler, Cortland, Chenango

*Silene* – Broome, Allegany, Wyoming
*Stellaria* – Franklin, Steuben, Wyoming, Orleans
*Rumex* – Herkimer
*Hypericum* – Schuyler
*Cardamine* – Cortland, Sullivan, Schoharie
*Lysimachia* – Cortland, Orleans
*Ribes* – Broome, Schuyler, Ontario, Orleans
*Amelanchier* – Livingston
*Geum* – Wayne, Seneca, Broome, Franklin
*Potentilla* – Cortland, Seneca, Wyoming, Orleans
*Rosa* – Cortland
*Trifolium* – Herkimer, Schenectady, Cortland, Seneca
*Acer* – Cortland
*Asclepias* – Cortland, Wayne
*Scutellaria* – Schuyler, Cortland, Broome, Schoharie
*Veronica* – Orleans
*Galium* – Orleans
*Lonicera* – Wayne, Wyoming
*Bidens* – Broome, Schuyler
*Potamogeton* – Broome, Schoharie
*Scirpus* – Wyoming, Orleans
*Muhlenbergia* – Broome
*Panicum* – Franklin
*Trillium* – Kings
*Cypripedium* – Fulton, Seneca, Orleans

Cortland County appeared most often in this list with Orleans County second. I think they would be good candidates for additional flora work. Maybe you can find other less common genera that also have gaps in just a few counties. If you are out collecting plants in some of these counties this summer, make sure you collect these common genera and deposit your specimens in a NY herbarium to fill the gaps in the atlas.

Happy botanizing!
Did You Know...

Submitted by Troy Weldy, Eastern New York Chapter, The Nature Conservancy

Did you know that New York State DEC regulations (Part 193.2) protect only one individual tree? Can you name the tree?

Some hints:

- It is the oldest of its species in the Eastern US.
- It was once thought to be a Balm of Gilead tree, giving rise to the name of the settlement that grew up around it.
- The tree is over 300 years old and is said to have been visited regularly by Franklin Delano Roosevelt.

Copied directly from the DEC regulations: “The following trees, by reason of their rarity, uniqueness, scarcity or endangered status, shall be protected pursuant to section 9-1503 of the Environmental Conservation Law: Balmville Tree (eastern cottonwood x carolina poplar) located at the intersection of River Road, Balmville Road and Grand Avenue in the unincorporated community of Balmville, Town of Newburgh, Orange County.”
NYFA Annual Meeting Notes
Kimberly Smith and Steve Young, New York Natural Heritage Program

The 2011 NYFA Annual Meeting took place during the Northeast Natural History Conference at the Empire State Plaza Convention Center in Albany on April 7th. We had a great turnout, and it was an opportunity for botanists from around the state to connect and share ideas. The board elections took place, and two new board members were officially elected. Welcome to Aissa Feldmann and Steve Daniel! Aissa is an ecologist with the New York Natural Heritage Program and has already been doing a wonderful job with the newsletter. Steve is an accomplished botanist and naturalist with Nature Discoveries in Pittsford. Three returning board members, Joe McMullen, Connie Tedesco, and Priscilla Titus, were re-elected.

The highlight of the meeting was a presentation by Rob Naczi, Curator of North American Botany at the New York Botanical Garden, on his work revising Gleason & Cronquist’s Manual of Vascular Plants of Northeastern United States and Canada (1991). Great advances in botany in the past two decades have made the time ripe for its revision. Particularly compelling justifications for revision are 1) improvements in understanding relationships among families and genera, 2) continued taxonomic discovery in the region at the specific and infraspecific level, and 3) field discoveries of an increasing number of non-native species that have become established in the region, including invasive plants.

The goals of this project are to produce a compact, one-volume Manual intended for field use, as well as to create an accompanying online Flora. The online Flora will expand on the contents of the Manual by including discussions, photographs, citation of literature, etc. The region of coverage for the new Manual is the same as for Gleason & Cronquist—a vast area of northeastern North America including the entirety or portions of 22 states of the U.S.A. and 5 provinces of Canada. The total area covered is about 860,500 mi², which is equivalent to 29% of the area of the 48 contiguous states of the U.S.A.

The botanical scope of the new Manual is also the same as its predecessors: all vascular plants growing spontaneously and established in the geographic area covered. Included will be an estimated 5000 species and 200 families of vascular plants (about 25% of all North American species and nearly 65% of all North American families).

Several innovations distinguish the new Manual, including collaboration by a team of taxonomic and floristic experts, and inclusion of etymologies of generic names and specific epithets, conservation status for each species, morphologic synapomorphies for families, and new identification tools. Rob suggested that botanists could help by submitting specimens and photographs, as well as offering assistance if we are experts in a particular taxonomic group. We are all very excited that this invaluable flora of our region is being revised, and look forward to using it.
NYFA NENHC Awards

The New York Flora Association was pleased to present three awards, each for $150, for presentations and posters at the Northeast Natural History Conference.


Honorable mention: Matthew Pace, Institute of Systematic Botany. “Rediscovering the Flora of the New York Botanical Garden Forest, Using the Steere Herbarium.”

Best Student Talk: Hazel Stark, College of the Atlantic. “Plants and People of New England: Our Contemporary Reliance on Traditional Knowledge.”


Best Poster: Elizabeth Coffey, SUNY-Albany. “The Effects of Stress-induced Plant Responses on Leaf and Soil Composition.”


Honorable mention: Nava Tabak, Hudsonia, Ltd. “*Salvia glutinosa* Naturalized in Southeastern New York.”

NYFA Small Grants Award

The New York Flora Association’s Small Grants Program has selected Megan Ward of SUNY Plattsburgh as this year's grant recipient! Megan, a junior Biology major and president of SUNY Plattsburgh's Student Chapter of the Botanical Society of America, submitted a proposal entitled "The Current Status of a New Potential Invasive Plant Species in Clinton County, New York: *Mycelis muralis* (Asteraceae).” Known commonly as wall-lettuce, *M. muralis* is an abundant component of understory communities in at least three sites in Clinton County. Megan's field research, planned for this summer, will establish distribution and habitat-preference data for the species, in addition to quantifying the impact it is having on co-occurring native species.

CONGRATULATIONS TO ALL!
NYFA Announcements

Announcing the 2011 New York Flora Association field trip and workshop calendar!

For full details and registration information, see the "field trips and workshops" tab on the NYFA webpage: http://www.nyflora.org/field-trips-and-workshops/

May 21-22 (Saturday and Sunday), 2011: Salix (willow) workshop based out of Ithaca (Tompkins Co.), led by David Werier. Co-sponsored with the Bailey Hortorium, Cornell University.

June 4 (Saturday), 2011: High Valley Farm field trip, Columbia County, led by Troy Weldy, Claudia Knab-Vispo, and Richard Ring.

June 19-23 (Sunday-Thursday), 2011: Joint field meeting of the Botanical Society of America - Northeastern Section, Torrey Botanical Society, and Philadelphia Botanical Club based out of Ithaca (Tompkins Co.). (Also see flyer in this newsletter.)

June 24-26 (Friday-Sunday), 2011: Botrychium (grape fern and moonworts) workshop based out of Ithaca (Tompkins Co.), led by Art Gilman.

June 29-July 1 (Wednesday-Friday), 2011: Sedge workshop based out of Geneva (Ontario Co.), led by Tony Reznicek.

July 23-24 (Saturday-Sunday), 2011: Flat Rock field trip (Clinton Co.), led by Anne Johnson, Chris Martine, and Scott LaGreca.

July 31-August 1 (Sunday-Monday), 2011: Bergen Swamp / Letchworth field trip (Genesee, Wyoming, and Livingston Cos.), led by Steven Daniel and Doug Bassett.

August 28 (Sunday), 2011: Cryptogam Committee trip to Burrows Cave, Newcomb, NY (Essex Co.), led by Scott LaGreca.

September 10 (Saturday), 2011: Hubbard Creek Marsh & vicinity, Suffolk Co., Long Island, Joint field trip between NYFA and Long Island Botanical Society, led by Eric Lamont.

September 17 (Saturday), 2011: Aster and goldenrod workshop based out of the Niagara Falls region, led by John Semple.

Don’t forget to check the NYFA Calendar of Events for other field outings and activities: http://www.nyflora.org/calendar-of-events/. Friday Field Group trips begin on April 29 with a trip to Joralemon Park in Albany County!
Invitation to the 2011 Joint Field Meeting of the Botanical Society of America - Northeastern Section, Torrey Botanical Society, and Philadelphia Botanical Club

Cosponsored with the Finger Lakes Native Plant Society and the New York Flora Association

June 19-23, 2011 (Sunday-Thursday) at Ithaca College, Ithaca, New York

The 2011 Field Meeting will examine the flora of Tompkins County and vicinity in upstate New York. Located at the southern end of Lake Cayuga, Ithaca is in the heart of the extremely scenic Finger Lakes region. The city is home to the campus of Cornell University, including the Cornell Plantations, a remarkable botanical garden and arboretum as well as owner of numerous natural areas. Tompkins County also is renowned for three state parks with magnificent gorges and waterfalls, plus many additional designated natural areas that are open to the public.

Accommodations are in double-occupancy dormitory rooms of Ithaca College. The rooms are in “traditional style residence halls” (non-air conditioned rooms, shared bath facilities). There are also several nearby motels. Participants wishing to stay in a motel will need to make their own arrangements. Box lunches are included for each day of field trips (Monday through Wednesday). Also included are two breakfasts and a buffet dinner. The remaining meals will be purchased individually at a food court on the campus, or at nearby restaurants and stores. Transportation will be by a rented bus and by car-pooling.

Our field trip coordinator and leader is Mr. David Werier of the Finger Lakes Native Plant Society and the New York Flora Association. The sites he has chosen represent a diversity of vegetation types and will include:

- Lime Hollow Nature Center, Marl Ponds, and Chicago Bog: acidic bog, limy marl ponds, rich woods;
- Bear Swamp Sempronius: calcareous rich shrub fen, cool rich northern forests;
- Michigan Hollow: sedge meadows, rich peat swamp, rich and acidic woods;
- Thatcher’s Pinnacles and Biodiversity Preserve: rich forests with older trees, terminal moraine deposits, steep slope with native red pine, dry rim with dwarfed southern-affinity forests;
- Taughannock Falls State Park: impressive gorge and waterfall, rich forests, talus slopes;
- South Hill Swamp Natural Area: swamp white oak swamp, diversity of sedges.

In place of the first two, we may include these recommendations from Mr. F. Robert Wesley, Natural Areas Manager at the Cornell Plantations:

- Landers’ Corners Bog: Carex pauciflora, Listera australis, Orontium aquaticum;
- Jam Pond Bog: large open bog surrounded by red maple-black spruce-tamarack peatland forest.

There will also be a variety of evening lectures. An optional informal trip to the Cornell Plantations is planned for the morning after the meeting on Thursday June 23.

For further information contact: Larry Klotz, Chair lhklot@ship.edu or Robynn Shannon, Co-chair rndshannon@cox.net. A registration form is on the following page.
2011 Joint Botanical Field Meeting Registration Form
deadline: Tuesday, May 10, 2011; limit 54 participants

Please note: Unlike previous years, there will be no paper mailings of this invitation and registration form. If necessary, the Chairperson can provide individual copies upon request. Registration for this meeting is open to all interested parties.

Name(s): ______________________________________________________________________________

Address: ______________________________________________________________________________
____________________________________________________________________________________

Phone: ___________________ Email: ___________________

Reminder: The first three options below include the meals listed on the previous page. Participants wishing to stay in a motel will need to make their own arrangements.

_____ participants X $269.00 basic rate, double occupancy .................................................. $________________

_____ participants X $373.00 basic rate, single occupancy .................................................. $________________

_____ participants X $165.00 without room ................................................................................. $________________

_____ participants X $70.00 without room and meals ................................................................. $________________

Mail your check for the full amount made out to Botanical Society of America with the completed Registration Form to:

Dr. Larry Klotz
Shippensburg University – Department of Biology,
1871 Old Main Drive, Shippensburg, PA 17257

Please include here the name of the person with whom you wish to share a room, or indicate that we may assign a roommate:

____________________________________________________________________________

Please include here the name and phone number of a person to be notified in case of an emergency:

____________________________________________________________________________

Check membership(s) of the participant(s) named above in Botanical Organizations:

Botanical Society of America _____ Torrey Botanical Society _____ Philadelphia Botanical Club _____

Other botanical organization: _______________________________________________________________________

In making this application, participants affirm that they are in general good health, are physically able to keep up with the group in the ordinary course of field activities, accept as their personal risk the hazards inherent in any outdoor activity, and will not hold the Botanical Society of America, or other sponsoring organizations, or the trip leaders responsible for the same.

Signature and date: ____________________________________________________________________________
REMINDERS

NEW YORK FLORA ASSOCIATION BLOG
Reporting on the Flora of New York

It’s easy to stay up to date on the latest in New York state plant sightings, plant related events, job postings, conservation issues, and many other topics throughout the state by visiting:

http://nyflora.wordpress.com/

Don’t forget to promote awareness of NYFA by proudly purchasing and wearing Café Press items.

http://www.cafepress.com/nyflora

Become a fan of the New York Flora Atlas on Facebook!
Just enter “New York Flora Atlas” into search from your Facebook page. It is a great place to connect with other fans, and upload photos you would like others to help you identify.

Please note that all programs and trips are posted on the NYFA calendar at:
www.nyflora.org/Calendar.html
Let us know if you have any others you would like to post by sending them to Steve Young at:
young@nynhp.org

Countless individuals and institutions have provided data, effort, and funding to make the New York Flora Digital Plant Atlas available, incorporating information from over 70 herbaria. Why not take advantage of this unparalleled resource and explore New York’s floral riches by visiting the website at: http://newyork.plantatlas.usf.edu
Go Green with an Electronic Newsletter!

If you don’t need to renew at this time and would like to receive the newsletter electronically in .pdf format, send an e-mail to: kimberly.smith@oprhp.state.ny.us and put "NYFA electronic newsletter" in the subject line. We appreciate your efforts to save paper, money, and time by receiving your newsletter electronically. An electronic membership has the added advantage of delivery before paper copies are sent out and includes full color photographs. To date more than half of our members receive the newsletter electronically. In the future, we hope to convert most of our members to the electronic newsletter format!

NEW YORK FLORA ASSOCIATION MEMBERSHIP FORM 2011

Annual Membership dues:

_____ New $20
_____ Renewal $20 per year
_____ New Student Members Free the First Year. School: ________________________________
_____ Additional donation to support NYFA efforts like botany presentation awards and small grants.
_____ Total $ ________________________________

Name: ___________________________________________________________________________

Address: _________________________________________________________________________

City: __________________________ State: ______ Zip Code: _____________________________

We encourage you to receive your newsletter electronically. If you can, please enter your email address here: ___________________________________________________________________________

Check here if you already receive your newsletter electronically: ______

Today’s date: _____________

Make checks payable to the New York Flora Association

OR, if you would like to use your credit card, please fill in the information below:

Card type (circle one):   VISA  MASTERCARD  DISCOVER  AMEX

Name on Card: ______________________________________________________________________

Amount Charged: ________________________________

Credit Card Number: ____________________________  Expiration Date: _____________

Control Number on Back of Card: _____________

Mail this form to:  NY Flora Association, 3140 CEC, Albany, NY 12230

Thank you for supporting NYFA and the flora of New York State!
“If future generations are to remember us with gratitude rather than contempt, we must leave them more than the miracles of technology. We must leave them a glimpse of the world as it was in the beginning, not just after we got through with it.”

- President Lyndon B. Johnson, upon signing the Wilderness Act, 1964

Awake, thou wintry earth -
Fling off thy sadness!
Fair vernal flowers, laugh forth
Your ancient gladness!

-Thomas Blackburn, "An Easter Hymn"

In June as many as a dozen species may burst their buds on a single day. No man can heed all of these anniversaries; no man can ignore all of them.

~Aldo Leopold

Spring is sooner recognized by plants than by men.

~ Chinese proverb

Do you have a photograph, article or poem, or pondering that you would be willing to share with other NYFA members? We are always looking for interesting contributions for our newsletter and blog. Please send your contributions and suggestions to:

EDITOR@NYFLORA.ORG