

Washington Conservation District Plant of the Week – Spring 2010

By Jyneen Thatcher

Lillies-of-the-valley and Lance-leaved violet- May 25, 2010

After just a few days of heat and humidity, I'm looking for shade and adding to my shade gardens.



One option for non-native gardens is the lily-of-the-valley (*Convallaria majalis*). It has an aromatic spike of white bell-shaped flowers, and while the leaves are thin, they persist throughout the summer. The plant sends out runners (boy, does it ever!) and if confined by root guards the leaf patch can become quite dense. The leaves look similar to orchid leaves (lanceolate, with two-three along the stem) so I have heard of gardeners planting them for the appearance of a natural plant community. I wouldn't recommend planting this plant anywhere near a natural setting, as it can choke out the natives. According to Gleason and Cronquist (one of our botanical bibles) there is a "seemingly native" species in the southern Appalachian, which differs from the distinctly colonial group of garden escapees. But in a cultivated garden setting, it can be benign, as the seeds don't travel far.

And in a strange twist from borrowing names from nature, the false or wild lily-of-the-valley (*Maianthemum canadense*) is a true native wildflower in the north woods. I rarely see it in bloom, so don't usually see the resemblance. Usually, I just see a patch of two-leaved plants. Sometimes, there are the remnants of tannish berries at the end of the stem, but usually it's just the 2-inch leaves clasping around the stem.



Often there is just a single leaf. Because it comes out of dormancy early, it's also called the Canada mayflower. It can be confused with another native wildflower called the three-leaved false solomom's seal, which has a similar over-all size and a terminal spike of small flowers. The main difference is the three leaves which are also clasping, but a lot longer. The berries are dark red, and it is an obligate wetland species, not common in the mesic woods. If I find one, I'll feature it with photos.



The third plant for this week is the lance-leaved violet (*Viola lanceolata*), a species listed as threatened in Minnesota. This little white violet has a long linear leaf (lance-shaped) instead of the heart-shaped leaves of other white violets. Its natural habitat is wet, sometimes saturated sand but also peat soils. It is very small - note the normal oak leaf for scale. If you find any of these in Washington County, let me know. But be careful if you go tromping around counting the plants you find, as there are other rare species that grow in the same habitats. For more information, do a search of the MnDNR's web-site for recent findings.

Maidenhair Fern, Mountain Ash and Poison Ivy – May 24, 2010

Too many plants are blooming for me to keep up with them all, so I'll try to avoid repeating last year's offerings.



First the good one: Maidenhair fern (*Adiantum pedatum*) is a true fern, with a distinctive leaf frond. Instead of leaflet-lined vertical fronds, it has a stiff, blackish stem with a semi-circle of the leaves. The leaflets are bright green early in the season, and quite distinctive when seen in a large patch. But when they are just a few, they can easily fade into the background. In certain light, the contrast between the lime-green and the black stem are what gets noticed. In a garden setting, be sure to plant a low, plain plant for an understory. Something like ginger looks good. Or a neutral mulch like oak or maple leaves. Like most ferns, it likes moisture, but does okay in a shaded, mesic site.



Next the bad. Kind of. There are a few Mountain ash (*Sorbus* spp) that are native to Minnesota, but around here we more commonly see the non-native varieties. There are many horticultural varieties offered for landscape design, but the European mountain ash (*S. aucuparia*) which has been here since the late 1800s, seems to have the potential to become invasive. The seeds are eaten by birds and dispersed in the usual fashion. Sometimes the seeds persist on the twig through the winter, but other times are cleaned off by a flock of migratory songbirds. In particular, flocks of cedar waxwings and robins have been seen to strip a tree of seeds in one afternoon. Sometime in the past there must have been a promotion for mountain ash, as we seem to have a lot of the same aged trees around the county, experiencing the same phenomenons. The big deal in my yard is the die-off, branch by branch. It seems to be related to shade (at least the shady side of the tree is least healthy), the bark splits and curls, and the sapsuckers have drilled characteristic rows of holes while looking for bugs.



Finally, the ugly. Just a reminder to watch out for poison ivy (sorry if I'm a week too late for some of you). The attached photo shows the new 3-leaved ivy, as well as the 5-leaved woodbine. They often get confused, since the emerging leaves looks similar, with a purplish-brown color, and the vining habit. Unfortunately they grow in similar habitats and those of us who are trying to control the woodbine can carelessly grab a vine and pull, before we get a good look at the leaf.



Be careful out there folks.

Yellow rocket and Siberian pea shrub

There's a lot of yellow blooming along the roadsides right now, but nothing that I'd put in a bouquet for Mom.



Most obvious is yellow rocket (*Barbarea vulgaris*) which is a weed. At least, the State of Minnesota has placed it on the state's secondary weed list, which means that counties can add it to their local noxious weed lists fairly easily, at their option. This plant will

grow in almost any conditions - wet or dry (it has a wetland indicator status of "Facultative"), sandy or silt loam, and even drained peat soils. It sets lots of seeds, which form over a long period of time, as the plant continues to form new flowers further up the stalk. It can grow as either annual, biennial, or hang around as a perennial, each season setting more seed. Identifying characteristics are the terminal clusters of four-petal flowers, and the rosette of strongly lobed leaves. When the rosette is young, the leaves look more round, but gradually develop the additional lobes. When the plant is more mature, the higher leaves are more arrowhead shaped, and toothed, and are usually clasping around the stem. The "rocket" species are part of the mustard family; some are used as an herb, others aren't.



The other yellow blossom plant is the siberian pea shrub (*Caragana arborescens*). This shrub is found throughout Washington County, usually on drier sites and often in shelterbelts. Why? Because we offered it for many years as part of our tree program, for its durability and value for wildlife. The downside of that durability is its ability to produce many generations of new seedlings. Unlike the amur maple, these seeds

don't fly away to new sites, but tend to drop to the ground forming large colonies. I generally discourage monotypic plantings, and the pea shrub has the ability to grow in so densely that other plants are shaded out. I haven't targeted them as a species to remove as they are easily controlled through mowing or prescribed burning. On the plus side, they are a legume and will add nitrogen to the land around them, and honey bees love the nectar. It is not native to North America, as you probably guessed from the common name. The leaves are compound and very soft, and at first you might mistake them for prickly ash. But in addition to



the growth habit being different - pea shrub is usually multi-stemmed, while prickly ash has a single stem with lateral branches - there aren't any thorns.

Ribes - May 3, 2010

For years I've been wondering which species of Ribes has recovered in my woods after the removal of buckthorn. Individual species of this genus (the currants and gooseberries) are hard to tell apart by the leaves and stems, and I've always managed to miss the flower-bloom time. Or maybe they just haven't had enough sunlight to bloom until now. I did notice that some shrubs had thorns and/or bristles and that other were thornless, but I just considered them oddities. Never noticed the differences in the leaves. Now I know better.



Missouri gooseberry (*Ribes missouriense*) has thorns and sometimes bristles on the stem. The leaves, like all the Ribes, are deeply lobed resembling small maple leaves. The stems are grayish and the outer bark splits and peels after the first year. The branches are flexible, and can tip-root when the berry load bends them down. The flowers are green-

white, and have that shooting-star form of long stamens projecting forward and the petals folded backward. The swamp gooseberry looks similar, but is found in wetter sites than the dry-mesic woods favored by the Missouri gooseberry. The berry is edible - purple/brown, and smooth. I haven't seen enough berries to give you a flavor assessment yet. Maybe later in the summer.



The other species is the wild black currant (*Ribes americanum*). It also has gray bark, arching or trailing branches without thorns or bristles, and lobed leaves. But the flowers are a hanging cluster of yellow flowers. The berries will turn red, then dark purple or black by late summer. Based on the number of flowers I'm seeing this year, maybe I'll get to try the fruits too.



Both of these species, like all the Ribes, are alternate hosts to the parasitic fungus that causes the white pine blister rust. This is a big deal in an area where we love our pine trees, but both plant groups are important in the natural world.

You can find more information on these and other species of Ribes in *Trees and Shrubs of Minnesota*, by Welby Smith and the MnDNR.

Woodland wildflowers - April 20, 2010

This weird weather has many people itching to work in their yards, but it's just too early to start planting the garden since we're still a month before the normal frost-free date. Instead, lots of folks are working on removing buckthorn from their woods. Here's some encouragement in that direction - examples of plants that have regenerated after years of suppression by the shade and competition of buckthorn, based on our surveys of county residents who are fighting that battle.



Bloodroot (*Sanguinaria canadensis*) blooms early, and is noticeable when the flower bud protrudes from the leaf litter, with the leaf folded around the stem. The flower opens first, and the leaf opens fully after the flower has shed its petals. It gets its common name from the reddish sap if you pick it.

Spring beauty (*Claytonia virginica*) is much less noticeable, having slender leaves and a prostrate growth form. The flower has five white petals with distinct pink veins down each. It fades quickly, and the entire plant goes dormant early in the summer. It is a true "ephemeral."



The yellow trout lily (*Erythronium americanum*) can form large patches when released from the buckthorn. The first years, the leaves are single but recognizable by the mottled appearance. The blooms open for a few days, and are pollinated by insects. I've heard that the seeds are harvested by ants, and carried off to their burrows, where the colony feeds on the seed coatings but not the seeds. The seeds

germinate in the "refuse piles", deep enough to be protected from small mammals. The patch in this photo has grown from 2 feet diameter to approximately 15 feet diameter, in just 8 years.

Shinleaf (*Pyrola elliptica*) isn't blooming yet, but the leaves form a solid carpet among the birch trees. This plant is one to watch for, as I've seen it in a wide range of site conditions (both moist soils or dry) on many sites and relatively soon after the first round of buckthorn removal. It might take a few years to bloom, so don't get impatient. The common name comes from its use in herbal remedies as a shin-plaster.



Supposedly you can tuck the leaves into your socks, and an aspirin-like compound will relieve the pain of shin-splints which you got from crouching and pulling the first-year buckthorn seedlings.

If you've been pulling buckthorn and seen some natural recovery of the native plant community, I'd love to hear about your findings. Maybe

I'll turn them into a post-retirement project. Or if you know of someone researching that as their thesis, I'll share my findings and let them do the work.

Skunk cabbage, elderberry, hepatica - April 14, 2010

The general consensus is that we are 2-3 weeks ahead of normal for native plant blooms, so here is a group of what's growing in our neighborhood.



A few weeks ago I suggested watching for skunk cabbage, and got responses that it was already blooming. The photos here were provided by Diane Hilscher, president of the St Croix Oak Savanna Chapter of the Wild-Ones. Skunk cabbage (*Symplocarpus foetidus*) has specific habitat needs, related to groundwater seepage. Since groundwater is warmer than surface water during our winter, seepage areas are the first to thaw and start the growing season. Skunk cabbage has the uncommon growth pattern of setting the flower first, which attracts pollinators by its unique smell, which gives it both the common

name and the scientific name (*foetidus*). In the photo, the flower is at the bottom of the image, sort of a purplish-brown, well camouflaged among the leaf litter. Later, the leaves will be more prominent, looking somewhat like hosta. They also have the stink, if you crush one.



If you don't happen to have a seepage area nearby, hepatica (*Hepatica acutifolia* or *H. americana* - based on leaf characteristics) may be the first spring ephemeral you spy. The leaves are sometimes semi-evergreen, but last season's are usually buried under the leaf litter. If you zoom in to the large clump of blossoms in this photo, you can see one leaf behind the single blossom in the lower right of the clump.



The big attention-getter, at least based on my phone calls, is the red-berried elder (*Sambucus racemosa/pubens*). This shrub leafs out early from stout stems, but the flower buds form not long afterwards. In the first photo (taken on 4/11/2010), you can see the purplish clusters of buds towards the end of the branch. The flowers are a pyramidal raceme, and the berries will be bright red sometime in June. This shrub is native to Minnesota, and thrives in moist forests. It tolerates shade, but when given sunlight it will really expand its growth. Local efforts to remove buckthorn have favored the elderberry's habitat, which may be why we're seeing more of it. Don't expect to harvest the berries, as the birds seem to eat them before we're ready to make jelly. And besides,

the other species of elderberry (*S. nigra/canadensis*) is much tastier. That species is less common around here, but has a less ragged appearance, with a flat cluster of flowers and nearly black berries later in the summer.



Squill - April 5, 2010

First of all, I want to apologize to those of you who wasted time and dignity in seeking out information on my April Fools Day joke species ("rose-flowered sumac"). I understand that quite a few people searched the web for more information, and others asked colleagues about it. I am flattered that I'm taken so seriously, but embarrassed to have contributed to the proliferation of misinformation via the web. I should have included the date in the subject line. If you look closely at the photo, you'll see that it is two shrubs - one is a staghorn sumac, the other is a hardy shrub rose.

The early spring weather is bringing species into bloom much sooner than I expected. Some of the first plants to bloom in our yards are the minor bulbs, and because they "naturalize" freely I am often asked if they are native.



Snowdrops (*Galantus* sp.) is usually the first to bloom; Rusty took this photo almost two weeks ago.

Siberian squill (*Scilla siberica*) is a vivid blue, up to 6 inches tall, and readily spreads by seed. Sometimes the seed is ejected with enough force that it travels several feet away from the colony. If it takes root in a lawn, it gives that little bit of color. The negative is that the leaves will go dormant late in the summer, leaving a potential bare spot. Or, the bulb may attract a squirrel to dig it up.



Puschkinia (*Puschkinia scilloides*) is a bit less prolific than the squill, with white flowers that have a blue central vein. The flowers are in small clumps, and tend to face outward or upward, in contrast to the squill that have one or two flowers, pointing downward.



Scilla and *Puschkinia* like the same habitat conditions, and bloom at the same time. If you get a large crop of them, you can cut them for an early-season bouquet. But don't be surprised if they droop - they appear to be sensitive to public water treatment chemicals, and will wilt within hours. But if placed in well water or distilled, they don't react that way. I don't know about snowdrops; I've never had the heart to cut the first plants blooming.

If you are interested in woodland wildflowers, in the coming weeks watch for the first blooms of hepatica, then blood root, skunk cabbage and marsh marigolds.

Rose-flowered sumac (*Rhus rosiflora*) - April 1, 2010

Here's a plant to watch for as you are out and about the countryside.



The rose-flowered sumac (*Rhus rosiflora*) has a leaf and branch structure similar to the staghorn and smooth sumac, but has a distinctly different flower. The flower is similar to a multiflora rose, and may come in a range of colors, but pink or white seem to be the most common. If you look closely, you'll notice that the flowering branch has thorns, so be careful if you try to pick the blossom.

This is a rather uncommon sight, so if you find one I'd appreciate hearing about it. But no fooling around, okay?

Maples - March 23, 2010



It's getting real close to bud time, and one of the first group of trees that I notice blooming are the maples. Maybe that's because the flowers open well before the leaves are out, and the bright red of the flowers of some species gives a reddish tinge to the crown of the trees. Silver maple and red maple are the most obvious, as the other maples in Minnesota have greenish or whitish flowers. But even sugar maples and boxelder have large pom-poms

of flowers on the end of the twigs.

Several of the maple species are well know around here. Silver maple (*Acer saccharinum*) grows in low areas and floodplains, with flakey gray bark. The middle lobe of the leaf is narrowed, even slightly concave. The wood is fairly soft, and frequently breaks during storms, so it's not the most popular as a landscape feature.



Red maple (*Acer rubrum*) has a bright red flower cluster, a great counterpart to the red color of the autumn foliage. The center lobe of the leaf is squared, but the leaf margins have many small teeth along the edge.



Sugar maple (*Acer saccharum*) has the characteristic "maple-leaf" shape, with a few large teeth along the margins. The autumn foliage can vary from orange to red, even on the same tree. This species is tolerant of shade, so it survives as the understory within the forest and



eventually can dominate the forest.

Also tolerant of shade is the black maple (*Acer nigrum*) which is found in the southeast counties in Minnesota, particularly along the low-lying areas of valleys. The leaves have few teeth along the margins, even fewer than the sugar maple, but they look enough alike that the best way to tell the two species apart is the presence of small stipules (leaflike bits at the node where leaf petioles attach to the twigs) on the terminal twigs of the black maple. I don't have a

good photo of the black maple, but since we are offering them as part of our tree sale this spring, I expect to get photos in future years.

What do the maples all have in common?

1. Opposite branching pattern
2. "Maple-leaf" shaped leaves (don't you hate that kind of description?)
3. Double or "paired" winged-samara seeds, with red and silver maples dropping the seeds in the late spring, while the other maples drop the seeds in late summer or fall.
4. Can be tapped for maple sap, to be processed for maple syrup. Sugar maple is the most productive, but all the others will work.

March 9, 2010- Wild Plum



prairies and does best in sun and The blossoms are size as crab-apple or usually are clustered

blossoms. The stems of the small plum trees are frequently contorted, probably from straining towards the sunlight, and are grayish in color but turning nearly black when wet with spring rain or mist. That contrast between very dark bark and the white bloom makes the plant very noticeable at highway speeds. Up close you will see that the leaves are just starting to open when the flowers are in full bloom.

Like other Prunus species (including cherries) the flowers have a strong, sweet smell and provide early-season nectar for bees and other insects, which in turn provide pollination service for fruit production. The wild plum fruit are about 1-2 inches in length, with a pit that is more than half of that size. The fruit is edible by humans, but the small amount of flesh on each fruit makes for inefficient eating. But when fully ripe, they are delicious, and make a fine snack while you work in the yard. And of course, the fruit can be used to make jelly, either by itself or mixed with other wild fruits.



Wild plums shelter wildlife by forming thickets. The roots send out suckers, which sprout and grow into new trees following the sunlight. The branches will tangle with the older branches, making the thicket a challenge to penetrate. This provides a level of protection for the wildlife, and also protects some of the fruit from predation by humans. In addition to the tangle itself, the stubby branchlets come to a sharp terminal point that can be wicked. In contrast, apple trees have similar branchlets which are softer and easily broken, while hawthorn have long, smooth true thorns.

It's a bit early to start watching for blossoms, but in another 6 weeks I'll be watching for the first wild plum to bloom along the county roadsides. American wild plum (Prunus americana) grows just about everywhere



in Minnesota and a good portion of Wisconsin. It grows in forested habitats as well as croplands, although it is susceptible to fire. white, about the same cherry blossoms, and into small groups of



Wild plum grows in a wide range of conditions, but those traits that make it good for wildlife plantings may not be the same traits desired for a front-yard planting. If you want to sample some wild plum jelly, I'll have some for you to try at our tree seedling distribution event on April 30 and May 1. Priority given to those who have pre-ordered their bundles of plum seedlings.

Spruces and Pines - March 1, 2010

We are moving into the end of the winter, when even I start to look forward to spring. Birds are starting to give spring calls, even though they are still sheltering in the evergreens. So it's time to talk a bit about cover species. Like the spruces and pines.



We used to offer Colorado spruce in the WCD tree sale, but dropped that one a few years ago. Instead, we encourage the planting of the native white spruce (*Picea glauca*). White spruce grows well (but not fast) on loamy to dry sites. The branches are fairly stiff and the needles are fairly short, which make for a good "decorating" tree. The needles are fairly pliable, in contrast to Colorado spruce. One of

the non-natives we still offer is the Norway spruce (*Picea abies*), which tolerates a moister climate and more shade than the white spruce. The identifying characteristic of the Norway spruce for many people is the slightly pendulous lateral twigs, seen in the photo. Spruces provide seed (in their cones), and the buds are eaten by some larger birds, but otherwise the most important



wildlife function they provide is for cover. The horizontal branches support shelf-like nests and plenty of perching opportunities for warblers and chickadees as they glean the twigs for insects. In addition to the cover of the upper branches, the



lower branches will weight down with snow, and create ground-level shelter for pheasants and small mammals.



One of the confusing elements of our tree program is between the Norway spruce and the Norway pine, also known as red pine (*Pinus resinosa*). Almost as confusing is the use of the term "pines" for all evergreens, which we try to correct. As mentioned a few weeks ago, spruces have needles arranged individually around the twigs, while pines have the needles grouped into fascicles containing a certain number of needles. White pine (not to be confused with white spruce!)

have 5 needles per bunch. Red pine has two per bunch. Most of the other pines found in Minnesota (both native and introduced) have two per bunch, so by itself isn't the final clue for red pine. I'm not going to try to explain the differences, but remember that the conservation plantings of Scots pine and jackpine are now dying off from disease and poor health, but similarly aged plantings of red pine are still going strong. The shelterbelts may need some rejuvenation, to fill in the areas where the lower branches have self-pruned, but the timber is still good quality. And yes, most of the pines found in Washington County were planted as part of conservation plantings, or reforestation. The exceptions are a few relicts along the ravines bordering the St. Croix River.

