

## Washington Conservation District Plant of the Week – Summer 2010

By Jyneen Thatcher

### Roadside Nasties – Aug. 23, 2010

Some days we spend on slow walks in the wilderness; others are spent traveling in an air-conditioned car. Either way, us plant geeks watch the flowers along the way.



Common ragweed (*Ambrosia artemisiifolia*) has the perfect reason to view it from the car, if you have hayfever. Huge plumes of pollen go airborne when you walk through a patch of it. People don't even notice that it is blooming, as the flower is the same color as the leaf. The leaf is highly dissected, kind of like a carrot leaf, and is often dusty from the open soil that it grows in.

Giant ragweed (*Ambrosia trifida*) also grows in disturbed ground, but prefers a moister soil than the typical roadside edge. It is often found at the edges of cropfields, the area tilled over but not cultivated for weed control. The tight spike of flowers is similar to that of the common ragweed, but much larger. The leaves are deeply lobed, but only one to three lobes instead of 50. The entire plant is much larger (frequently 5-6 feet tall), and is a real annoyance to someone who is allergic to it - walking through a field with the pollen load coming at face height. Yuck. Both of these ragweeds are native annuals, and birds feed on the seeds.



I was asked to review spotted knapweed (*Centaurea maculosa*) which is nearing the end of the seasonal bloom cycle. It is particularly nasty in that it is a biennial, but responds to mowing by setting a flower on the stub of a stem. It has a thistle-like blossom, of pinkish color, and rather rough gray foliage. It grows predominantly in bare soil, like roadsides or new planted dry prairies. It has a moderately deep taproot, but can be uprooted fairly easily,

especially after a rain. It is related to the tumbleweed, and while it doesn't roll, spotted knapweed seed will blow on the wind, or the stems will break off and snag in animal fur. And there's more nastiness - some sources indicate the presence of an allelopathic substance that interferes with germination of native prairie seeds, and the form of the plant with heavy rosette of basal leaves and sparse stem-leaves hinder the spread of prescribed burns. If that isn't enough, some of the seeds will germinate the first fall, while others wait until

spring. Furthermore, sources indicate the presence of a toxic chemical that can affect humans, so be sure to wear gloves when you pull it up.



The past few years have been terrible for thistles, so I've included a photo of one to compare to the knapweed. We have a few native thistles around Washington County, both are rather uncommon and need specialized habitats (dry prairie and groundwater-fed wetland). Most of what we see are the noxious weeds.

The best of the "nasties" is a fun little plant called rabbitfoot clover (*Trifolium arvense*). It is a non-native annual, most commonly seen along roadsides. It is a true clover, and has the characteristic clusters of three leaves, but the flower head is a fuzzy pinkish gray. Compared to the other species listed here, it's rather innocuous, and is a great plant to teach your kids to identify.



### **Leaves of Three - Aug. 16, 2010**

Over the weekend, I visited my brother's new cabin site, in the north woods. Another family ecologist had already identified and sprayed the poison ivy, but I spent some time on reinforcing that identification. Since I'm seeing calamine lotion and benadryl on co-workers' desks, I figured we could all do with a refresher, this time with some other 3-leaved plants for contrast.



Poison ivy (*Toxicodendron radicans*) is a vine, or ground-creeper, often with most of the stem underground and just a few woody inches protruding from the soil. It has three leaves, which have multiple shapes varying with the maturity of the leaf. When very young, the leaves are shiny, smooth, with an even

edge, and are rather brownish in color. Later, they mature into a matte green color, with a slightly wavy edge. Later yet, like about now, the leaves are thick, dull green. Poison ivy turns bright red-maroon in the fall.



Hog-peanut (*Amphicarpa bracteata*) also has three leaves, on a delicate training vine. Like poison



ivy, hog-peanut has the two lower leaflets directly across from each other, with the middle leaflet on a petiole that is slightly longer than for the other two leaflets. The leaflets are rather triangular shaped



(like an aspen leaf), with edges of the leaflets completely smooth. The leaf is so light that it will flutter in the breeze, but the vine is tougher than the hair-like size would indicate. Each leaflet is about 1 inch across, and they turn yellow then tan in the fall. The flower is lavender, and similar in shape to other legumes. After pollination, the weight of the seed/peanut causes the vine to drop to the ground, and the vine will set roots and continue to grow.



Raspberry canes (*Rubus* spp.) typically have three leaves in each cluster towards the end of the canes, in contrast to the clusters of 5 or more towards the base. Some species have three over the entire length. The big difference is the sharp teeth on the leaflets and the bristles or thorns on the stems.

(*Desmodium glutinosum*) usually three with each leaflets with prominent stalk starts at the a continuation of the spaced pink flowers. noticeable, and noticed most often when sticky seeds get on your clothes. Or your dog. In this photo, the flower stalk was removed and laid across the leaves, to fit it into the image.



Pointed tick-trefoil has a whorl of leaves, leaf having three round points. The flower center of the whorl as stem, and has widely The flowers aren't very generally the plant is the crescent-shaped

Jack-in-the-pulpit (*Arisaema triphyllum*) has three leaves, but they are fused at the junction, with no petiole at all. The stem of the plant is soft, herbaceous not woody.



Trilliums (*Trillium* sp) are similar to the jacks, but have slightly more separation between the individual leaflets. The shape of the leaflets varies among the species, as does the position of the flower stalk. This plant also is soft, herbaceous.



**Monarda and Beyond – Aug. 9, 2010**



One of the most common prairie wildflowers around here is the native monarda (*Monarda fistulosa*). It's also known as bee balm or wild bergamot, and is closely related to the red bee balm (*Monarda didyma*) which is native to New England. These two species have a lot in common, such as the shape of the flower head (although *M. fistulosa* is lavender and *M. didyma* [aka oswego tea] is bright red), the shape and arrangement of the leaves, and the characteristic aroma. They are both highly attractive and valuable to bees, butterflies and hummingbirds. They share some growth patterns, in that they are both tolerant of a wide range of conditions, fairly easy to establish, and will spread. *M. fistulosa* spreads by seed, and can create a field of bee balm in a prairie restoration. *M. didyma* (which I don't have a photo of) is aggressive via rhizomes.



A lesser known species is dotted monarda (*M. punctata*) or horse-mint. That species prefers drier conditions, is shorter in height, has the distinctive aroma, but has a completely different flower. If you look for it in a field guide that is organized by flower color, your first inclination will be to look under the pink pages. You won't find it there, as the pink color is actually a leaf. The flowers are yellow with brownish spots, clustered around the stem below the pink leaves. Usually there are two or three tiers of the leaf-flower clusters. One of my field guides calls it "Another odd plant...." I can't argue with that.



My favorite "odd plant" is rattlesnake master (*Eryngium yuccafolium*), another prairie plant. This one is available from many prairie wildflower seed vendors, although it took several years to germinate and bloom in my prairie. The flower is white-cream-pale green, often the same color as the stem and leaves. The flower is a group of spheres, that look pricklier than they really are. The leaves are bristly, resembling the yucca plant, which is where the species name comes from. In Minnesota, the plant is listed as a species of special concern, causing many ecologists to be concerned about reintroduction of the species via a non-local genotype.



## Black-Eyed Susans - July 26, 2010



susans are the same.

Black-eyed susans are one plant that most everyone can identify. It is included in most prairie restoration mixes, and according to the USDA Plant database is found in almost every state of the US (excluded are Nevada, Arizona, and Hawaii) all the Canadian provinces except the northwest tier. Other databases show it in 49 states, excluding the northeast corner of Minnesota. I don't trust that one; I know I've seen it along Hwy 61. But not all black-eyed



The native species for the most common varieties is *Rudbeckia hirta*. The native variety, found in the native mixes, is more of a tender perennial here in Minnesota, but it reseeds prolifically. It blooms while young, often the first season, which is why it is so important to prairie restorations as a reassurance plant. Many of the other prairie seeds take so long to germinate and develop, that it's hard to trust that something really was planted out there. Then the black-eyed susan blooms and everyone breathes a sigh of relief. In several years, though, the short-lived plant will be replaced but other prairie species. The relative absence of blooms in year 4 worries people, until the other forbs start showing up.

The native species is named for the hairy stems and leaves. Even as a seedling, the leaves are recognizable by their long, narrow form, and coarse fuzziness on top and bottom. The stems are rather weak, and the flowers often sprawl across paths or lean on other plants. The stems are also rough; if you zoom in on even these photos, you can see the hairs. Their non-tidy appearance and unpredictable nature makes them less suitable for some prairie garden settings than other species.



*Rudbeckia* "Goldsturm" is a cultivar developed for the nursery trade. It has the characteristic flower, with the petals positioned strongly horizontal. The stems are rough, but lack the prominent hairs. Their stiffness makes them good for in bouquets and arrangements, and they often have multiple buds on each stem. The leaves look much like the leaves of purple coneflower (*Echinacea purpurea*). I can't always tell them apart in my garden, until they get a flower stalk. Unlike the native species, Goldsturm forms a distinct mound of leaves, fitting into a formal perennial bed very nicely. But like the species, it will throw viable seeds for quite a distance, so can become quite dominant in a garden.

Recently, other cultivars have been refined by the nursery trade, capturing the inherent variability in the species. One is called "gloriosa daisy" and has a two-toned petal and prominent brown disc. Some varieties of the cultivar have darker petal near the disc, and others are pale yellow closer to the disc. Other cultivars include Sonora, Indian summer (reddish brown and yellow petal), and Irish eyes (green disc). If you plant these in your garden, realize that they are developed from mutations, and might not be as hardy as the native strains.

## Purple Flowers - July 19, 2010

Regardless of the early season bloom in 2010, we are now seeing the native purple plants, right on schedule.

Heal-all (*Prunella vulgaris*) may be my most-often requested identification, at least on site visits. It is another of those species brought here for its medicinal qualities, but has escaped cultivation and is now common to disturbed sites. It seems to prefer slightly shaded areas, such as woodland edges, or under the brush along roadsides or fencelines. The purple flower blooms all summer, but with only a few flowers open at a time. The dead seed head is persistent into the winter, and can be identified then too. The leaves are opposite, lanceolate with slightly rounded ends.



Hoary vervain (*Verbena stricta*) is a native American prairie plant, easily grown in a cultivated setting, and common to restoration mixes. It has opposite leaves, somewhat clasping with the upper ones pointed upwards. The leaves and stem are very soft and appear furry (technically called *hirsute*). Even the flower stalks has enough texture that it appears grayish from a distance. The flowers bloom in order,

forming a ring which appears to migrate up the flowerhead. It is a wider ring of bloom than is seen on the blue vervain. Hoary vervain likes dry prairies, and I find it occasionally in prairie remnants, but more commonly in restorations.



The plant that is synonymous with prairie is leadplant (*Amorpha canescens*). On several sites, I've been walking across an old field, when I suddenly notice the lead-gray compound leaf structure, and start paying a bit more attention to the other species I'm walking through. On land that hasn't been plowed, leadplant can

survive as a true remnant of the old prairie. It is actually a shrub, although new or young growth lacks characteristic woody bark. The flowers are a terminal cluster of spikes, with tiny purple flowers with orange anthers. It is not an ooh-aaah flower, but to those of us who keep an eye open for prairie remnants, it is a WOW-ser.



And finally, as a wrap up of last week's species, I've attached a photo of the seed-pods of the swamp milkweed, provided by Karen Engelbretson. Notice how they are narrow, and stand upright, unlike the common pods. In this photo, you can see the longitudinal veination in the pods, which indicates how the pod will split when the seeds are ripe. Once the seeds have flown, the pods will persist through the winter, making for easy winter identification.



## Milkweeds - July 14, 2010

Milkweed plants are in their prime bloom right about now. We have several species locally; the three most common are featured today. The presence of milky sap isn't entirely reliable, as some milkweeds don't have it, and other genus do (*Euphorbia* and *Apocynum* for example). The flowers of the milkweed family share characteristics of a globose umbel of flowers, with each flower having a set of petals extending forward, and a set of petal-like sepals curved backwards. The size, color, density, petiole length and location of the flower on the stem varies from species to species.



Common milkweed (*Asclepias syriaca*) is the species most familiar to most of us. It is found in native prairies, and along roadsides and waste areas. It colonizes rapidly, via roots and seeds. Some people think it is the least attractive of the group, considering the pale flowers and coarse leaves, but it is

valuable to wildlife. Monarch butterflies commonly use this species as the host for their eggs and caterpillars.



Swamp or marsh milkweed (*A. incarnata*) has a much deeper pink color to the flower, which also is terminally located on the stem, giving it a stronger visual appearance in a garden setting. Its umbel isn't quite so spherical, but still provides great source of nectar to loads of butterflies. The stem is frequently branched, forming multiple flower heads. The leaves are

more lanceolate than *A. syriaca*, but still large enough to host mature monarch caterpillars. As you might guess from the common name, this one thrives in marshes or swamps, competing fairly well against reed canarygrass. Some cultivars are available through nursery catalogs, which have difference colors of flowers, including white. I haven't heard of them being reliably hardy in Minnesota, and don't know if they are less valuable to butterflies.



The third species I have photos of is butterfly weed (*A. tuberosa*). This species has two quirks - it lacks the classic milky sap, and has a striking orange flower. Note that it has the same shape of the flowers as the others. This species is part of the native prairie complex, and is found in many restorations, or in remnants throughout the region. The species normally prefers very dry soil, but some strains have been

found that tolerate clay and the associated fluctuating moisture conditions. This species can be very hard to get established in a garden setting, needing the "correct" moisture regime and little competition. Moderate sized plants seem to do best, as the smaller plugs get overwhelmed by the competition, and the large plants suffer

from transplant shock. But when they get established, they are spectacular.



There are other species of milkweed locally, including whorled milkweed (*A. verticillata*) which is a small plant, with very narrow leaves in a semi-whorled pattern. The flowers are white and tiny, and the seed pods are narrow and stand up tall at the top of the plant. Those seed pods are similar to the marsh milkweed and butterfly weed, quite a bit narrower than the pods of the common species shown in the photo. But the seeds all have the white parachute, which fly free when the pods dry and split open.



Trivia- the seed fluff was used in life-preservers during WWII. The Red River valley in NW Minnesota was one of the major suppliers of the fluff.

### **Tufted loosestrife and Ribbongrass - June 28, 2010**

You've all heard about the reasons for using proper scientific names for plants, instead of common names. That's why I give the latin binomial in these e-mails (and readily admit that sometimes I use an old, outmoded name). Common names can mislead us all, especially if we have strong feelings about a plant with similar name.



My first example today is tufted or swamp loosestrife (*Lysimachia thyrsiflora*). By the common name, many folks associate this with purple loosestrife, and they panic if I find it on their shoreline. In actuality, it is a native species of a different genus than purple loosestrife. It has an opposite leaf pattern, with narrower leaves than the purple loosestrife. But the flowers are nothing similar - instead of purple spikes, tufted loosestrife has yellow puffs at the leaf axils. It spreads via rhizomes, but rather slowly, and grows sparsely enough that finding it is always a delight.



On the other side is "ribbongrass." I promised this rant last year, and I fully expect that some of you will disagree with me. Ribbongrass is often presented as an ornamental, or good for those "tough" sites where nothing else will grow. A few sources caution about its invasiveness, but not all. This is a form of reed canarygrass

(*Phalaris arundinacea*), the plant that has encroached into wetlands everywhere. The rhizomes are tough enough that they crowd out nearly every other plant. They form a mat, which on shorelines get undercut by wave action, and smother nicer plants like lily-leaved tway-blade and tuberclad rein-orchids. As you can see from the photos, the seedhead is the same, and the plant mass will sprawl, and quickly loses its attractiveness if it isn't given frequent care. So



even though I trust that YOU will keep it under control, I don't trust the person you give clippings to, or who takes over your garden when you change residences. DON'T PLANT IT. And thank you to those who destroy it.



Lastly - greecian foxglove (*Digitalis lanata*) is blooming already. If you find it on your parcel, or along the roadside, please let me know where it is. Then do what you can to control it - wearing rubber gloves if pulling it by hand. See <http://www.dnr.state.mn.us/invasives/terrestrialplants/herbaceous/greecianfoxglove.html> for more information.

### Coreopsis and spiderwort - June 14, 2010

This week's plants are two native prairie species, from the same general site characteristics of dry to mesic prairie.



There are two coreopsis species offered by local native plant suppliers - one is rather aggressive via rhizomes (*Coreopsis palmata*); today's feature is not that one, but the lance-leaf or sand coreopsis (*Coreopsis lanceolata*). From a distance, it looks like a sunflower, and while it is a member of the composite family, up close you'll see the serrated edge of the ray petals, and the solid yellow disc in the center of the bloom. The plant is about 2' tall, with the leaves mostly at the base of the plant. The long clean stem above the leaves makes for a great plant for cut flowers, at least if you are part of the radical crowd that sacrifices the next generation of seed development for the sheer enjoyment of the blooms. Like most native plants, it will set viable seed so the patch can be expected to spread, but slowly.



The perfect companion plant is the spiderwort. The one shown is the ohio spiderwort (*Tradescantia ohioensis*), which has the clear blue flower color. In addition to being popular at native nurseries, it grows wild in roadside ditches throughout western Wisconsin. Not so much in Minnesota; must be the difference in roadside maintenance. The leaves of the spiderwort are long and narrow, giving a grass-like appearance when not in bloom. The plant is about 2' tall, which allows the flower to stand above the young grasses. It's one of the plants that I get asked about while on June bicycle rides. There are other species of spiderwort, both native and cultivated varieties, which have different colors, habitat needs, and behaviors. Some (like *T. bracteata*) are very invasive through



rhizomes, and have even been able to choke out smooth brome. That's not a good thing, as it will also choke out any other attempts at diversity. Spiderwort gets its name from the leaf-like bracts that extend immediately behind the flower. This plant also does okay as a cut flower, although each individual blossom only lasts a day. Luckily, there are usually a bunch of buds in each cluster, which will open gradually over a few days.

### **Anemones and parsnip - June 7, 2010**

The common theme in today's group of plants is the white color.



Wood anemone (*Anemone quinquifolia*) was featured previously, but I want to compare it to the Canada anemone (*Anemone canadensis*). The wood anemone grows in mesic woods - shady places. Canada anemone has a very similar flower, with 5 white petal-like sepals - but grows in wet, sunny areas. It also is found along shady woods' edges, especially

along roadside ditches. The plant grows taller than the wood anemone, and has a whorl or two of leaves below the flowers. The flowers are often single, but sometimes a pair of blooms. Both plants will spread if given the right conditions. I haven't found the wood anemone to be bothersome, but I know that other people have commented on their aggressiveness. Canada anemone is my nemesis. The single 4" pot I planted a few years ago has taken over my garden. If you want trimmings, let me know and bring your own shovel. Just consider yourself warned.



In contrast to the anemone's invasiveness, the star flower (*Trientalis borealis*) is more often seen as individual flowers than a vast carpet. It can be found in various moisture regimes, from bogs to dry woods, but in Washington County I see it more commonly in bogs. The flower usually has 7 petals, which is rather uncommon, and the seed that forms in late summer is pale blue, looking like a tiny ball of playdoh. It has a brittle stem, which breaks easily if stepped on.

On the other extreme of size, is the cow parsnip (*Heracleum lanatum*). This plant is huge, standing 5-8 ft tall, and with leaves that are 12 inches long by 8 inches wide. The stem can be 2 inches thick. It looks like a monster queen anne's lace, with the flat terminal cluster of white flowers characteristic of the parsley family. The leaves look a lot like the wild parsnip, but that plant has yellow flowers. The other



really distinctive appearance is the inflated sheath at the base of the leaves, visible on the foreground plant in these photos. The other plant that it could be confused with is angelica (*Angelica atropurpurea*), which has a purple stem and a really nice scent; kind of vanilla-like. Not so with cow parsnip, which is described as rank smelling.

And a bonus - not a flower but frequently noted on flowers - the spittlebug. In the photo with the lupine, you'll see two patches of white froth on the cockle plant. That froth is evidence of the presence of spittlebugs. There are 70-some species of "spittlebugs", but you'll rarely see more than the spittle, which is generated by the larval form of the bug, and serves as a protective coating of moisture around the larva which is growing within the plant stem. The spittle is a bodily fluid generated by the bug, but not spit. EWWW.

