

The Blazing Star



A PUBLICATION OF THE NORTH AMERICAN NATIVE PLANT SOCIETY

Native Plant to Know

Cup Plant

Silphium perfoliatum

by Lisa K. Schlag

Nature's open-air convenience store, cup plant (*Silphium perfoliatum*), has proven invaluable to humans and wildlife. The specific epithet, *perfoliatum*, means "through the leaf" and refers to how the stem pierces the joined leaf bases. The opposite leaves encircle the stem, forming cup-like structures with the capacity to collect and hold water. Native Americans and early settlers used the water-filled cups as emergency drinking water. They used the roots, leaves and sap for medicinal, hygienic or ritual purposes. Cup plant also provides wildlife, from insects to birds, with the basic needs of life: food, water, cover and nesting.

Before human activity drastically altered North American grasslands, native grasses and wildflowers grew in environments with extremes of temperature and moisture, soil type, wind and fire. To survive in wildly diverse conditions, prairie species such as cup plant evolved adaptations. Most prairie plants have two root systems. A hardy herbaceous perennial of the tallgrass prairie, cup plant has a taproot and a secondary fibrous root system called rhizomes. The root system can reach a depth of 12 – 14 feet (3 ½ to 4 ½ metres) and its fibrous root system permits the perennial to expand its vegetative

extent by establishing colonies. The roots help anchor the cup plant in the soil and give it a greater reach to secure soil moisture and nutrients. Aldo Leopold learned first-hand that the deep root systems of members of the *Silphium* genus are not easily transplanted (except when young). In his "Prairie Birthday" essay in *A Sand County Almanac*, he wrote,

Silphium first became a personality to me when I tried to dig one up to move to my farm. It was like digging an oak sapling. After half an hour of hot grimy labor the root was still enlarging, like a great vertical sweet-potato. As far as I know, that *Silphium* root went clear through to bedrock. I got no *Silphium*, but I learned by what elaborate underground stratagems it contrives to weather the prairie droughts.

Cup plant is a first-rate pollinator plant that attracts a wide variety of

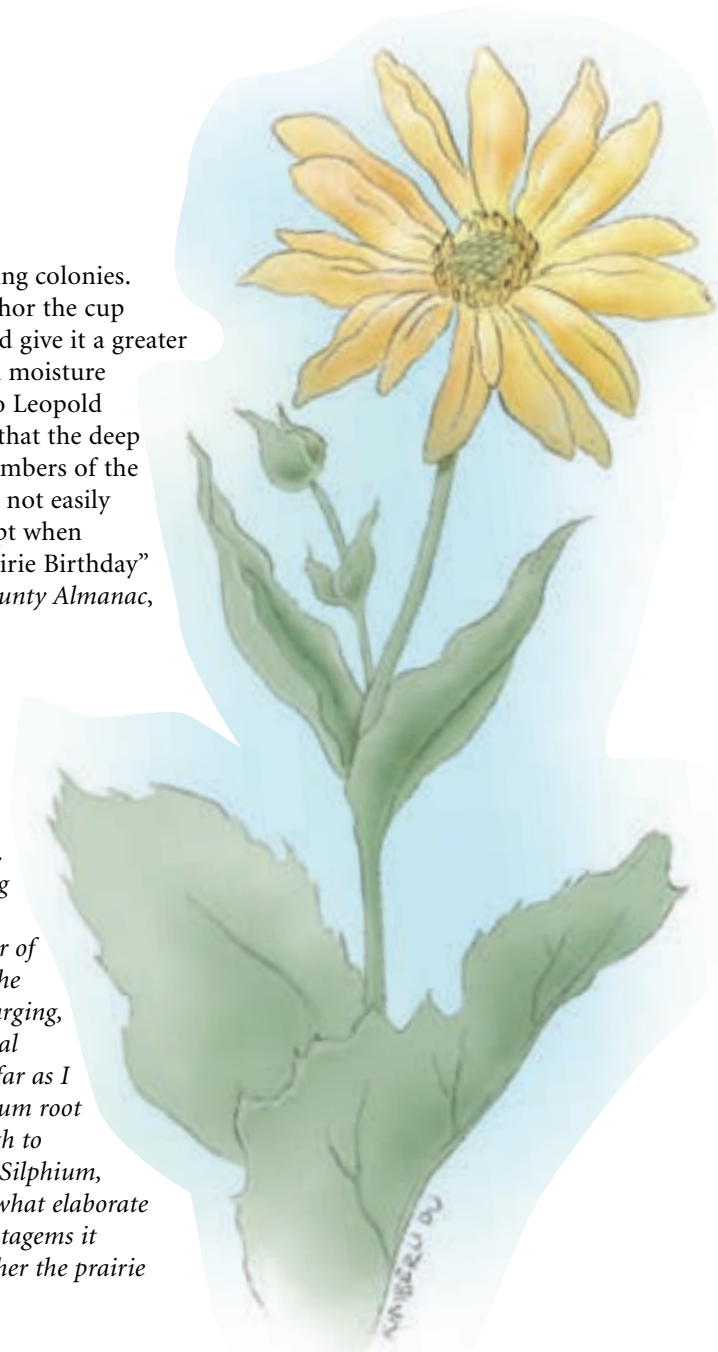


ILLUSTRATION BY KIMBERLI DU

Continued on page 15

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NANPS News

NANPS Annual General Meeting

Saturday, October 29, 2022, 1-3 p.m.

Zoom format. Visit nanps.org/agm for details.

Call for Board Members!

Our organization is volunteer-run and depends on the dedication and commitment of its board members. We are currently seeking additions to our busy, passionate team of native plant enthusiasts.

Prior board or non-profit experience is not essential. Board members meet nine times per year on a weekday evening. They also participate in at least one committee. New board members will be voted in by our membership at the AGM in October. The position of recording secretary, with the task of recording the minutes at our board meetings, will be open after the AGM. Please contact info@nanps.org if you'd like more information.

Canadian Garden Council's 100 Garden Moments

In celebration of *Canada's Year of the Garden 2022*, the Canadian Garden Council has identified 100 Garden Moments that have contributed to the development of Canada's garden culture. One of the moments included is the 1985 founding of the Canadian Wildflower Society (renamed the North American Native Plant Society in 1999) and the publication of the first issue of the society's *Wildflower* magazine (replaced in 2004 with our current newsletter, *The Blazing Star*). NANPS is honoured by the recognition and proud to be a part of the movement.

CANOE GARDENS

In 2013, the North American Native Plant Society joined the David Suzuki Foundation and other organizations in creating a community canoe planting initiative known then as The Homegrown National Park Project. The canoe gardens, now part of The Butterflyway Project, have expanded to some 50 locales, at parks, schools, churches and other public places in the Greater Toronto Area and beyond. There are now canoe gardens from Comox, British Columbia to Antigonish, Nova Scotia. Jode Roberts of the David Suzuki Foundation is in charge of the project and created a map showing the locations of some of the canoes: <https://bit.ly/canoegardens>.



Canoe garden at Roxton Park Road

PHOTOGRAPH BY ADAM MOHAMED

Swallowtails and Their Food Plants

by Don Scallen

Perhaps the most charismatic group of butterflies we have are the swallowtails (family Papilionidae). Beauty is one of their defining characteristics. These butterflies have background colours of black or yellow but add flourishes of iridescent blues and orange spotting to amplify their appeal. These colours, and dimensions rivalling that of monarch butterflies, make them stand out.

There are over 550 swallowtail butterfly species on earth. Among them are the birdwings, the largest butterflies in the world, with wingspans up to 11 inches (28 centimetres). Many swallowtails, including the seven species in northeastern North America, have extended lobes on their lower wings, hence their name.

The adaptive radiation of swallowtails into so many species has allowed their caterpillars to avail themselves of a diversity of food plants. The swallowtail caterpillars in northeastern North America vary from strict specialists to generalist feeders. Zebra swallowtails are one of the specialists. Their caterpillars feed only on the leaves of pawpaw (*Asimina triloba*) trees. These small trees of the largely tropical custard apple family (Annonaceae) thrive in rich bottomland soils and edge habitats throughout much of the Midwest and mid-Atlantic states, north into Pennsylvania and western New York. They also grow in extreme southern Ontario, but their scarcity so far north means that zebra swallowtails are only occasional visitors to the province. This could change in the future. Planting pawpaws in Ontario and beyond their natural range in the northeastern U.S. is becoming de rigueur because of their tropical appearance and their large, tasty fruit.

Another specialist feeder is the pipevine swallowtail. This lovely butterfly has a black and iridescent blue upper side. The lower side of the lower wings flaunts more blue, highlighted with prominent orange spots. As revealed by its name, this swallowtail feeds on pipevines. In the northeast and Midwest, Dutchman's pipe (*Aristolochia macrophylla*) is a host plant, along with woolly Dutchman's pipe, (*A. tomentosa*). Virginia snakeroot (*Aristolochia serpentaria*) is also eaten by the pipevine swallowtail caterpillars. These plants in the birthwort family (Aristolochiaceae) contain the potent toxin aristolochic acid, which causes kidney damage and cancers in humans. This toxin is incorporated into the tissue of the caterpillars and adults, conferring some protection from predators in the same manner as the toxic alkaloids in milkweeds (*Asclepias* spp.) protect monarchs. None of the pipevine swallowtail food plants grows naturally in Canada, but Dutchman's pipe, grown as an ornamental in Ontario, occasionally attracts breeding pipevine swallowtails.

Spicebush swallowtail caterpillars are not quite as selective as their pipevine and zebra swallowtail relatives. They have



The spicebush swallowtail caterpillar is a snake mimic.

PHOTOGRAPH BY DON SCALLEN



Sassafras leaves

PHOTOGRAPH BY DON SCALLEN

Continued on page 4

Continued from page 3

evolved to eat pleasantly aromatic leaves of spicebush (*Lindera benzoin*) and sassafras (*Sassafras albidum*), both in the Lauraceae (Laurel) family. Spicebush, a shrub of moist soils throughout almost the entirety of the eastern United States, is also found in southern Ontario. Sassafras, a small-to medium-sized tree, has a similar range. The intimate relationship that spicebush swallowtails have with these plants dictates that they have almost precisely the same distribution.

Spicebush swallowtail caterpillars are stars of the insect world. In the early stages of their development, they mimic slimy, repulsive bird droppings, as is the case with some other swallowtail caterpillars. But then they transform into gorgeous lime-green snake mimics, with impressive false eye spots. At this stage in their development, these caterpillars roll the edge of a leaf around their bodies and hide inside. It is speculated that birds hunting for a caterpillar meal peer into these leaf tubes, see the head of a “snake” and then recoil.

Giant swallowtails are the largest butterflies in North America. Their caterpillars feed on plants in the citrus family (Rutacea). This might suggest that the northeastern U.S. and Canada are out of bounds for these butterflies, but there are, in fact, two wild citrus plants that make residency in the north possible. One is hop tree (*Ptelea trifoliata*). Small and rather nondescript, hop tree, also known as stinking ash in reference to the ill scent given off by crushed leaves, grows widely in the Midwest, the southeast, and sporadically elsewhere. The other native food plant for giant swallowtails in the north is prickly ash (*Zanthoxylum americanum*), colloquially known as toothache tree for the alleged analgesic properties of its bark. Prickly ash, like hop tree, ranges widely in the Midwest, extending northeastward into Ontario and Quebec. It is sparingly distributed in many other parts of eastern North America. An understory shrub of



Tulip tree in bud

PHOTOGRAPH BY DON SCALLEN



A giant swallowtail just after emerging from its chrysalis.

PHOTOGRAPH BY DON SCALLEN

deciduous woodlands and edge habitats, it is aptly named. It is impressively armed with sharp thorns that sometimes provide the first – and painful! – notice of its presence in the landscape. Prickly ash ranges further north than any other native citrus family plant. This has in recent decades allowed giant swallowtail butterflies to colonize parts of eastern Ontario, Quebec and New England, a northward movement that has likely been assisted by climate change.

These giant swallowtail caterpillars are extraordinary creatures, employing a grab bag of adaptations to avoid being eaten. Like the early stages of spicebush swallowtails, they mimic bird droppings, but unlike the spicebush caterpillars they maintain this ruse throughout their caterpillarhood. This allows them to sit atop leaves during the day as they feed, instead of hiding. Giant swallowtail caterpillars, like other swallowtail “cats,” also use snake mimicry and will raise their heads as if poised to strike. Also like other swallowtail caterpillars, they can extend a bright orange organ called an osmeterium, which looks like a snake’s forked tongue. Osmeteria release a pungent scent, probably imbued with repellent chemicals.

Black swallowtails eschew tree leaves. Instead, they are carrot family specialists, laying their eggs on native members of Apiaceae, including golden Alexanders (*Zizia aurea*), yellow pimpernel (*Taenidia integerrima*), sweet Cicely (*Osmorhiza claytonia*), great angelica (*Angelica atropurpurea*), the pleasant-smelling aniseroot (*Osmorhiza longistylis*), honewort (*Cryptotaenia canadensis*) and the striking (no pun intended) rattlesnake master (*Eryngium yuccifolium*). These native plants exclusively sustained black swallowtails prior to the arrival of European settlers. Europeans introduced a host of garden herbs and vegetables, such as dill, fennel, carrots and parsnips, that now also serve as

Continued on page 6



Hop tree leaves

PHOTOGRAPH BY DON SCALLEN



A black swallowtail male on butterfly milkweed (Asclepias tuberosa)

PHOTOGRAPH BY DON SCALLEN

Continued from page 5

nurseries for these lovely black and yellow butterflies. Beyond our yards, they lay their eggs on several non-native carrot family plants that have become concerning invasives, Queen Anne's lace or wild carrot (*Daucus carota*), wild parsnip (*Pastinaca sativa*) and giant hogweed (*Heracleum mantegazzianum*) among them.

Black swallowtails and spicebush swallowtails are thought to be mimics of their toxic pipevine swallowtail kin. All three species are similar in coloration – basic black with blue iridescence and orange spotting on the lower wings.

The final two northeastern members of the flamboyant swallowtail tribe are Canadian tiger swallowtails and eastern tiger swallowtails – near doppelgangers. Both have bright yellow wings, veined with black. It takes expertise and perhaps a dollop of chutzpah to separate them in the field. Their close resemblance speaks to a recent shared evolutionary past that is also demonstrated by the overlap in the food plants of their caterpillars. Both species are generalist feeders, eating a variety of tree leaves, including ashes (*Fraxinus* spp.) and cherries (*Prunus* spp.). The eastern tiger swallowtail, ranging further south than the Canadian, adds tulip tree (*Liriodendron tulipifera*), sweetbay (*Magnolia virginiana*) and other southerly species to its palate.

It was recently found that eastern tiger swallowtails are important pollinators of flame azaleas (*Rhododendron calendulaceum*) in the Appalachian Mountains. Surprisingly, this pollen transfer is accomplished by the flapping wings of the swallowtails. The stamens and stigma of the bright orange flowers extend well beyond the petals. As the butterflies use their long tongues to sip nectar from the flowers, the elongate stamens, capped with pollen-rich anthers, are perfectly placed to dust their wings with pollen, which is then transferred to stigmas of other flowers to accomplish pollination.

The flower structure of our native Turk's cap lily (*Lilium superbum*) and Michigan lily (*Lilium michiganense*) is very similar to that of flame azaleas; it's no surprise that tiger swallowtails – both eastern and Canadian – are attracted to these lilies.

The allegiance of swallowtail butterflies to their food plants allows us to attract them to our gardens. If you plant the herbs, shrubs and trees they need you'll be rewarded with exotic caterpillars and the adults' flamboyant beauty.

Don Scallen is a butterfly gardener and watcher (and all-round naturalist) who recently published a book called *Nature Where We Live for the budding naturalist in all of us*.



A Michigan lily showing the anthers loaded with pollen and the stigma in the centre. The flower parts are ideally placed to dust butterfly wings!

PHOTOGRAPH BY DON SCALLEN



A tiger swallowtail showing its osmeterium on a white ash tree (*Fraxinus americana*).

PHOTOGRAPH BY DON SCALLEN

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New Directions in the American Landscape
Founded in 1990 by Larry Weaner

Tennessee Wildlife Haven

by Irene Fedun

Purple coneflower (*Echinacea purpurea*) “blooms twice,” says Joy Stewart. First in the summer, when the rosy pink flowers appear. Then again as fall approaches, when each plant turns bright yellow and American goldfinches descend upon the spent blooms to gorge on the seeds.

It’s a recurring theme in Joy’s huge suburban garden in Bristol, Tennessee – the gardens are meant to encourage wildlife, whether it flies, crawls, slithers or hops into her welcoming space.

Bees, of course, love the profusion of nectar and pollen from spring-blooming wild geraniums (*Geranium maculatum*), several species of Joe Pye weed (*Eutrochium* spp.) and to grey-headed coneflower (*Ratibida pinnata*). Joy estimates that her gardens harbour 100 different species of forbs and grasses, but why bother counting?

Among her many favourites are species little known in northern climates. Lyre-leaved sage (*Salvia lyrata*) will grow just as happily in full sun as deep shade, producing pretty, pale purple flowers much loved by hummingbirds. More striking are the large basal leaves sporting reddish veins that develop a purple tinge in winter, making the plant an excellent evergreen groundcover.

In Joy’s garden, clustered mountain mint (*Pycnanthemum muticum*) sent runners across the ground until it filled a space 20 feet by eight feet (six metres by two metres) with solid growth. When this plant gets ready to bloom, the top clusters of deep green leaves turn white, eclipsing the splendour of the white flowers and turning the area into a snowy landscape in summer.

When asked to name her favourites, Joy mentions the graceful silhouettes of pale purple coneflower (*Echinacea pallida*), the dependability of annual partridge pea (*Chamaecrista fasciculata*) and the nodding reddish seedheads of river oats



PHOTOGRAPH BY JOY STEWART

Foogy the bullfrog

(*Chasmanthium latifolium*).

Over an eight-year period, with the help of her husband, Larry Hannemann, Joy systematically transformed the featureless lawns into a beautiful landscape. They started in the back because Joy wanted to do an organized planting, plotting everything out on paper. Sadly, she found she had to spray herbicides to kill the lawn. After the sod died and started to decay, she seeded a native plant mix of annuals and perennials into the dry, heavy clay soil (being sure to put up signs and brochures in front of the house to educate neighbours and alleviate potential concerns).

First the pond went in and then the meadow behind it. Miraculously – since there are no watercourses or

wetlands anywhere nearby – frogs appeared and then snakes. A bullfrog that Joy affectionately named Foogy dines regularly on goldfish from the pond. Turns out that goldfish are very fatty, which makes for one seriously overweight frog! A black racer was also spotted eating the fish. As he or she slowly emerged from the pond, Joy could discern three lumps over the length of the snake’s body in the process of being digested.

Although most of the wild animals arrive under their own speed, the couple deliberately introduced one to the yard. Larry was walking up the carpeted stairs of the local library when he saw what looked like a shoelace. It turned out to be a young rat snake. Without alarming any of the library staff or patrons, Larry and Joy



The eastern end of the butterfly meadow which is 85 feet by 35 feet (25 metres x 10 metres).



Clustered mountain mint is unsurpassed as a pollinator magnet.

quietly picked up the snake and took him home. By all accounts he's still enjoying the bounty of the garden!

A butterfly meadow, two wooded areas and a long, dry streambed for stormwater runoff round out a functioning plant community that is self-sustaining and largely weed-free. This naturally leads one to believe that there's no work involved. Not so. Joy's biggest challenge ("the killer work") is path maintenance and edging. She has over 450 feet (140 metres) of stone or mulched paths and a few patches of lawn. Either the native plants seed into the paths or the turf grass grows into the beds. Neither is a desirable situation for someone wanting to convince sceptics that native plant gardens can be tidy and worth having. After several years of back-breaking labour, then trying bleach and ammonia (they didn't work), Joy found a novel solution. Vinegar will kill every seedling except grasses when used at 5% acidity. So Joy found a way to increase the acidity so that it wipes out even the grass seedlings.

The vinegar recipe: three quarts (three litres) of household vinegar (either cooking vinegar at 5% or cleaning vinegar at 6%) and one quart (one litre) of 30% vinegar, available at lumber yards or over the internet. This gives slightly over 10% acidity. Joy sprays this potent mix once a week in the spring. It clears gravel paths turned seed nurseries within a few hours. It also works on mulch. As for the bits of lawn – if Joy were to do it all again, she would kill everything and seed native grasses.

Another difficult lesson learned: big bluestem (*Andropogon gerardii*) may be a great native grass for wildlife, but it is aggressive. Joy seeded a small area, but the big bluestem soon crowded out most of the wildflowers, requiring her to kill off all her plantings in the area and start over again without the stately grasses.

Joy freely admits that she is easily seduced by new ideas that create more

Continued on page 10

Continued from page 9

wildlife habitat. To that end, Joy and Larry recently installed a green roof on their storage shed, using plans, materials and plants provided by a specialist from North Carolina. Once a contractor had reinforced the roof to take the extra weight, they first put down a membrane to protect the sloped roof, then felt matting that acts like a sponge, holding in moisture for shallow-rooted plants. The growing substrate should be at least four inches (10 centimetres) deep. Diminutive native stonecrops (*Sedum* spp.), iceplants of the Aizoaceae family and nodding pink onions (*Allium cernuum*) are among the plantings. But many a plant from the gardens below has found a home up high, including cheery golden Alexanders (*Zizia* spp.) and tall thimbleweed (*Anemone virginiana*). Joy has found that it's hard to get 100% coverage on the roof. It needs watering during hot, dry spells, a precarious chore since she has to climb a ladder with a garden hose!

Another fascinating project Joy undertook was to have a contractor build a chimney for chimney swifts. Their numbers are dwindling rapidly, in part due to the tendency of land- and homeowners to chop down tall, hollow trees. But these insectivores readily take to human-built structures that meet their specific needs. One evening in the fall, as Joy was watering the green roof, she was treated to the sight of 50 -100 swifts circling around the house. She asked her husband to build a second chimney and this one is just as popular with the swifts! For anyone wishing to build their own, here's a good resource: a book of best designs called *Chimney Swift Towers: New Habitat for America's Mysterious Birds* by Paul and Georgan Kyle. (One caveat: Anyone planning to put up siding on the tower should know that the dimensions given for the cap are for towers without siding and should be adjusted accordingly. This is not mentioned in the book.)

Although Joy worked for over a



Before this area was planted in woody species it looked barren.

PHOTOGRAPH BY JOY STEWART



Upper path into the wooded area

PHOTOGRAPH BY JOY STEWART



Lower path into the wooded area

PHOTOGRAPH BY JOY STEWART

PHOTOGRAPH BY JOY STEWART



Building one chimney swift tower

PHOTOGRAPH BY JOY STEWART



A completed chimney swift tower with the green roof of the shed just visible

decade at the Wisconsin Department of Natural Resources and managed to sandwich in some really good graduate courses at the University of Wisconsin on native plant communities, there's always more to learn. And mistakes to regret! A big fan of author and entomologist Douglas Tallamy, Joy attended one of his talks a few years ago where he presented a list of non-native plants that were useless to wildlife. Much to Joy's horror, the large, well-established zelkova (*Zelkova serrata*) she had planted so lovingly was as good as "a plastic tree."

Despite a few oopsies, Joy's yard continues to attract all manner of critters. Currently, 14 species of birds, from Carolina wrens, catbirds and bluebirds to titmice, rufous-sided towhees and brown thrashers, nest on the property in birdboxes and trees. As Joy says, "the rewards came quickly" when she turned a virtual desert into a thriving native plant community.

It's deeply unfortunate that Joy and Larry have to move for personal reasons. Of course they don't want all their efforts to be ploughed over, so they can't simply sell to the first buyer. They are looking for someone who will value and preserve the ecosystems they've created. Although Homegrown National Park, the native plant organization Joy fervently supports, is keen to develop a website of properties for sale that espouse their mission of recreating wildlife habitat, the time and resources to do that are lacking for now. With the help of the local library's IT staff, Joy and Larry took it upon themselves to build a Wordpress website to sell their home. It gives them the opportunity to explain what they did with their yard and why it's important to protect it. Anyone interested in living in a native plant paradise in Bristol, Tennessee, should visit [https://forsalehousebristoltnplantparadise.com/!](https://forsalehousebristoltnplantparadise.com/)

Irene Fedun is the editor of The Blazing Star.

These Sisters in Silk...

by *Ingrid Remkins*

In pods, long open now.
In pods, themselves withered and worn.
In pods, soon to retreat back into the earth,
these seeds of the milkweed cling.

Some, still in tight and tidy rows,
remain sheltered in the hollow of their pods.
There is comfort here.
Why leave?

Others, seduced by the call of light and air
dare to show off their gossamer gowns.
“Aren’t we beautiful? Aren’t we fair?”
Even so, holding on.
There is comfort here.
Why leave?

With a clasp invisible to the human eye
but assurance to the sister,
one clings to the next
by a single thread.
One desperately pleading to the other,
“Stay! Don’t let go!”

These sisters in silk.
Delicate, brown-headed beings that
with just one whisper of the wind
might be carried off.
And yet, they cling.

They cannot know that they are woven
into the life of another creature:
sovereign of butterflies – the Monarch.

Itself long passed after its summer dance.
Long past the laying of its eggs
one by one
beneath the milkweed leaves.
Long past the caterpillar that grew
to spend its life upon this same plant.
Feasting, growing, cocooning.
Long past the next generation that then emerged.

How can they know?
These sisters in silk.

Or can they?

Can they know that they are agents of life?
And therefore,
must surrender their own?

A gust of wind... One lets go...



PHOTOGRAPH BY INGRID REMKINS

Ingrid Remkins likes to “wander in wonder...and catch glimpses of nature’s wisdom.”

Foraging for the Future

by *Chelsea Vieira*

Since moving to our home in rural southwestern Ontario, known for its vast escarpment and crystalline shores, I have learned so much from the living world around me. Here I became a beekeeper and neighbour to grazing cattle. Both species, cow and honeybee, quickly became my teachers, showing me the ways of reciprocity, interconnectedness and mindfulness. They move through life with an inherent understanding of give and take, knowing that they're better off when working together. These silent teachings may seem elementary, but I believe many of the world's problems could be solved if only we all honoured these truths.

Foraging animals take only what they need, returning again when enough time has passed for plants to regenerate. This way of life is critical to the survival of our ecosystems and the landscapes we call home, as the number of people who forage goes up.

They search for food in their surroundings for many reasons, including food poverty and the disruption of global supply chains. On the one hand, this has allowed many to rekindle relationships with the natural world, prompting them to help preserve ecosystems. On the other hand, some plants have since become at risk.

There are many ways we can move forward, giving back for all that we take and employing practices that protect rather than deplete these resources. We need to ensure the longevity of essential ecosystems and the health of wildlife and humans for generations to come. Here are some best practices for regenerative foraging or wildcrafting.

Redefining weeds

Anyone reading this surely knows that the term *weed* means a plant growing where it is not wanted. However, these plants have much to

teach us. Many of them provide an abundant and reliable food source. From the perspective of herbal energetics, they embody tenacity, resiliency and adaptability; this is evident from their ability to thrive in undesirable conditions.

Know your species

I recommend starting with what grows around you. In a sea of green, it's easy to let the diversity of species go unnoticed. Thankfully, we live in a world with unlimited resources at our fingertips, so identifying a species – and determining whether it is abundant or rare – is easier than ever.

One of the commonly overharvested endangered species is the ramp or wild leek (*Allium tricoccum*), a protected species in Quebec but fairly common in Appalachia. It pops up in the spring before the trees have leafed out. Native to eastern North America, this species grows slowly, reaching its full maturity

Continued on page 14



Wild leeks (Allium tricoccum) after flowering

PHOTOGRAPH BY LISA K. SCHLAG

Continued from page 13

from seed in seven years. Be careful, if harvesting this delicious species, to cut off only a third of the top of the plant, using scissors. This maintains the integrity of the root system. Do not pull or tug on the plant. The popularity of pickled leeks and other delicacies made from this *Allium* have resulted in seriously dwindling populations.

After you've determined that a species is at risk, find a substitute, otherwise known as an analogue. Many plants have similar uses, tastes or medicinal actions; getting to know them helps you make informed decisions about what you're using.

Lady's slipper orchid (*Cypripedium* sp.) is often sought out for its antispasmodic and nervine qualities, but this delicate forest orchid is in decline. Instead, consider using skullcap (*Scutellaria lateriflora*), a great tonic for the nervous system highly regarded by Canada's First Nations in the treatment of menstrual disorders, insomnia, nervous headaches and other issues.

Leave wild populations to thrive

It's best to leave at-risk species alone. Due to the pressures facing these plant populations, avoid foraging your own.

Sometimes, there are no suitable substitutes. For example, I felt compelled to use goldenseal (*Hydrastis canadensis*), an at-risk species, for a case of nasal polyps after unsuccessful attempts with holistic treatments. It is known to help with catarrhal conditions of the mucous membranes; it's also a powerhouse antibacterial and antiviral agent. After discussing the use of this plant with members of my herbal community, I decided it was the best plant for the job. I found a company with strong core values and purchased seeds and the powder. Since then, I have been mindful of how I use goldenseal, making sure to plant some in return for what I've taken.

Replenish populations

Growing your own is a great way to help populations, whether you do so from seed or by planting seedlings from reliable native plant nurseries.

If you do not have land, become active in your community, encouraging the maintenance and preservation of green spaces. This will encourage the proliferation of native species whose seeds may be dispersed by insects or wind. As is often said, give them space and they will come.

Think prevention instead of restoration

Be mindful of plants at risk and foster the same approach with all plants, to prevent them from ending up on the list. Our modern healthcare



American skullcap

PHOTOGRAPH BY MIKE OLDHAM

system usually operates on a problem-solving, not preventative, basis. For too long, we have dealt with the health of plant communities in the same way, caring only after a problem arises. Instead, let's care for all native species as the limited resources they are, with respect and a vision of a healthy future.

Chelsea Vieira is a community herbalist, yoga teacher and beekeeper passionate about environmental conservation and regeneration.

NANPS 2022 SEED EXCHANGE

The mandate of the North American Native Plant Society is to promote native plant biodiversity in wild and cultivated landscapes. To that end, we encourage members to share their seeds through our annual seed exchange. To learn how to harvest seeds effectively, visit nanps.org/seed-collection-reaping-what-you-sow, then send your seeds, separated by species and identified with the source/parentage, to NANPS Seed Exchange, Box 69070, St. Clair P.O., Toronto, Ontario, M4T 3A1. Note: do not take more than 10% of population from the wild. Seeds are distributed on a first-come, first-served basis to anyone who requests them, although seed donors get first pick!

Thank you!



Tall thimbleweed (*Anemone virginiana*)

PHOTOGRAPH BY JOY STEWART

Continued from page 1 – **Cup Plant**

insects, including bees, wasps, bee flies and other types of flies, beetles, butterflies and skippers. It is the host plant for the giant eucosma moth, *Eucosma giganteana*. If you enjoy the sights and sounds of nature in your

tubular disk florets. From July through September, the two- to three-inch (50- to 80-millimetre) flower heads are borne atop statuesque six- to eight-foot (two to 2 1/2-metre) square stems in branched clusters. Each pistillate

compass plant (*S. laciniatum*), prairie dock (*S. terebinthinaceum*) and cup plant. In an online post, entomologist Joe Boggs from Ohio State University wrote about his field observation of a *Silphium* species's response to a weevil's intrusion: "Apparently, some plants can mount a defense against the weevil's stem-puncturing behavior by exuding copious quantities of sticky, resinous sap. I came across a dead weevil yesterday that appeared to be stuck in the gluey sap issuing forth from holes the luckless weevil had chewed into a prairie dock stem."

Largely free of disease and pest problems, cup plant is tolerant of clay, sand and loamy soils and periodic dry spells once established, but it prefers damp and fully or partially sunny habitats. Cup plant is currently found from Quebec to Maine and south to Georgia, with its distribution extending west to Ontario and North Dakota and south to Oklahoma and Louisiana.

Other common names for *Silphium perfoliatum* are ragged cup, Indian cup and carpenter's weed, which alludes to the species's square stem.

I have grown cup plant in my wildlife habitat gardens in Ohio over the years. I appreciate its bold, stately beauty and value its importance to wildlife. In his "Prairie Birthday" essay, Aldo Leopold wondered "whether we cannot have both progress and plants." Given its ethnobotanical heritage, ecological importance and promising potential as an alternative energy crop and fodder plant for meat- and milk-producing farm animals, *Silphium perfoliatum* may prove we can.

Lisa K. Schlag is an Ohio-certified volunteer naturalist with The Wilderness Center (wildernesscenter.org) chapter in Wilmot, Ohio. She is the website and communications administrator and former treasurer for The Native Plant Society of Northeastern Ohio (nativeplantsocietyneo.org). She completed a geospatial technology certificate program which allows her to merge her nature and GIS interests.



PHOTOGRAPH BY LISA K. SCHLAG

The leaves of a cup plant wrap around the stem, allowing rain or dew to collect in the cup where a wasp has come to drink.

garden, cup plant is one of the best native perennials for wildlife. The ripe seeds are eagerly devoured by birds, especially the American goldfinch. Hummingbirds are attracted to cup plant for nectar and the small insects that visit the flowers. Beneficial insects like ladybugs and lacewings will dine on aphids. The water-filled cups provide insects, birds and frogs with a source of water. Cup plant's large, ample-sized leaves and dense growth habit provide cover and shelter for wildlife. After dying back in the fall, cup plant's sturdy, thick, hollow stems provide overwintering habitat and nesting sites for insects and other wildlife.

Cup plant is a member of the Asteraceae or Compositae family. This family is variably referred to as the aster, daisy, sunflower or composite family. The inflorescence, which is a composite of small individual florets, is what differentiates plants in this family from others. Cup plant's flower head is composed of 17 to 35 golden yellow, petal-like ray florets surrounding the central cluster of

(female) ray floret is fertile. Only the pollen-producing stamens (male) of the disk florets are functional. Thus, the seeds are produced by the ray florets, unlike the similar-looking sunflowers in the genus *Helianthus* whose disk florets produce seeds. The slender seeds of cup plant are called achenes. These have a marginal wing that may aid their dispersal by wind. The large, simple leaves have a sandpapery texture with coarse-toothed margins and a triangular shape. They can be 12 to 14 inches (30-35 centimetres) long and six to eight inches (15-20 centimetres) wide.

The structural features of cup plant's leaves may help minimize insect attacks and water loss. Members of the genus *Silphium* also exude a clear sap when the stem tissue is cut or damaged, which may offer protection from wildlife damage and has given rise to the common name rosinweed. The native sunflower-headclipping weevil is also known as the silphium weevil since it shows a preference for members of that genus, including



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