

The Blazing Star



NEWSLETTER OF THE NORTH AMERICAN NATIVE PLANT SOCIETY

Native Plant to Know

Little Bluestem

Schizachyrium scoparium

by Catherine Macleod

Schizachyrium scoparium or little bluestem once flourished throughout North America feeding bison and other grazing animals. It is a major component of the grassland complex of this continent, especially the tallgrass prairies that once occupied over a million square kilometres (400,000 square miles).

Today, the tallgrass prairie has shrunk to 0.1% of its original size. In this diminished state, little bluestem provides habitat for ground-nesting birds and butterflies. Ranchers take advantage of its high nutritional value, shipping their cattle to fatten on ranges in the Kansas Flint Hills and the Osage Hills of Oklahoma.

Little bluestem grows naturally in Manitoba, Ontario, Quebec, south through New England to Florida, west to Texas and north to North Dakota. But only pockets of the tallgrass prairie remain, notably on the Walpole Island First Nation near Wallaceburg, Ontario, the Norfolk Sand Plain in Brantford, Ontario, the Living Prairie Museum in Winnipeg, the Tallgrass Prairie Preserve in Oklahoma, and a few others.

With a surprisingly deep, fibrous root system of 150-250 centimetres (five to eight feet), little bluestem can draw water from deep in the ground and survive droughts as well as periodic fires. It plays a critical role in erosion control.

Characterized as a bunch grass, it has

many stems arising from one set of fine, fibrous roots.

This clump-forming perennial needs full sun and well-drained soil, and will grow to 60-90 centimetres (two to three feet) tall under ideal conditions. The beautiful branched flower heads (comprised of several three-to five-centimetre, or one-to two-inch, loose spikes) droop sadly in excessively moist and fertile soils.

The blue-green leaves are seven millimetres (1/4 inch) wide and about 50-100 centimetres (20-40 inches) in height. The stem has grooves above each node with a smooth sheath, usually strongly-keeled.

Until recently, *Schizachyrium scoparium* was mistakenly categorized with the *Andropogon* family. Little bluestem, however, is shorter and more drought-resistant than its taller cousin *Andropogon gerardii* or big bluestem. The genus name *Schizachyrium* translates as split chaff, while *scoparium* means broom-like, a reference to its stiffly bunched stems. Now rightfully identified, little bluestem enjoys full nomenclatural citizenship in the native grass kingdom.

In my Kincardine, Ontario garden the flowers appear in late summer. From late October to mid-November, little bluestem changes colour dramatically. The flat, hairless leaves of this species



ILLUSTRATION BY BRIGITTE GRANTON

Schizachyrium scoparium

Pronunciation:
Schizachyrium
(skits-ah-KEER-ee-um)
scoparium
(skoh-PAIR-ee-um)

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The *Blazing Star* is . . .

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A Final Letter

I have retired as President of the North American Native Plant Society, so this is my last letter to you. My change of status has its benefits – more time to enjoy the botanical world in all its wonderful complexity.

Despite the approach of winter, our organization keeps us active managing our annual Seed Exchange and planning for our Native Plant Sale in May. At our AGM, two new Board Members were elected. **Tom Atkinson**, a former NANPS President, has returned for another stint, and **Stacey Shannon**, an enthusiastic member, has also volunteered her services. Both are welcome additions to the Board. In the keynote presentation, native plant nurseryman **Paul Heydon** spoke about the importance of using local genotypes in propagating native plants. Board Member **Harold Smith** outlined the Board's concerns about the preservation of a parcel of alvar owned by NANPS on the Bruce Peninsula, known as Zinkan Island Cove, where potential development is cause for concern.

Three Paul McGaw Conservation Awards were presented in 2006 to: **Paul O'Hara**, botanist, landscape designer and owner of Blue Oak Native Landscapes, "for his advocacy of native flora and for inspiring our spiritual connection to nature by urging that we 'listen to the land'" **Richard Woolger**, "for his dedication and innovation in propagating native ferns and other woodland species" **The Naturalized Habitat Network**, a non-profit community-based organization dedicated to establishing and nurturing wildlife habitat in Essex County and Windsor, "for encouraging the use of native plants and other environmentally sustainable practices within home landscapes"

Congratulations to the award winners and many thanks to all who helped organize the AGM, our plant sale, seed exchange, tours and many other activities in 2006.

I encourage everyone to participate actively in this wonderful organization and I look forward to meeting you at future NANPS field trips and other events.

Grif Cunningham

Come Celebrate North America's Native Habitats!

We want to hear about your garden or restoration projects and what makes them special!

To celebrate the diversity of native plants in our environment...be it urban, suburban, rural, field, forest, or desert... be it a large restoration or a small garden... NANPS wants to identify spaces that best reflect our mandate to conserve, cultivate and restore North America's native flora.

We want to hear from NANPS members to discover what wonderful things you are doing to recreate, restore or preserve native plant habitats, in an ethical and sustainable manner, wherever you live in North America. We would like to establish a forum through which we can share and celebrate these efforts and the results! Hence, NANPS new **NATIVE PLANT GARDEN AWARDS**.

Please visit NANPS newly renovated website (www.nanps.org) for more

detailed submission requirements. You can start now, by preparing a list of the indigenous species in your garden, sketching your garden's outline, and gathering the photos that show off your plants in all their native splendour! If you have any questions, contact nanps@nanps.org or leave a voicemail at 416-631-4438. Remember, the idea is to demonstrate what makes your planting special!

Review of all submissions will be ongoing with final selection(s) after the July 31st, 2007 deadline. Photos and a description of the Award-winning garden(s) will be posted on our website with a write-up in the *Blazing Star* to follow. The Native Plant Garden Award will also include a certificate, a pewter NANPS logo pin, a sign for your garden, and official recognition at NANPS 2007 AGM.

Come share the beauty that is native to us all!

Sowing the Seed

by Irene Fedun

"I have the greatest respect for plants," says Gillian Boyd. "They know what they like far better than all the books." This simple philosophy underlies Gillian's gardening style and accounts for her success even in sandy soil.

She started her garden in Ottawa in 1969, but just gardened "around the edges" because young children needed lawns to play on. The expansion of the beds that occurred over the next two decades was gradual and conventional. But the prolonged drought – and resultant restricted watering – in 1986 changed all that. All the lawn grass by the road died but not the weeds. Why not make a roadside wildflower garden with tough local plants that could withstand salt and ice from the snowplow and future summer droughts, she thought.

Gillian collected plants from roadsides, waste ground and development sites for this purpose and then began a wildflower bank in the drainage ditch. Her most memorable experience involved a Joe-pye-weed (*Eupatorium purpureum*) in a local swamp. She felt an unusual throbbing under her feet. Before her mind was able to grasp what this might be, a swarm of bees surged up from the ground. She was stung more than once and forced to retreat as quickly as humanly possible. Later, when it seemed safe to do so, she came back to retrieve her shovel and her plant.

Over the years many plants joined that *Eupatorium*, whether collected, such as *Symphotrichum novae-angliae* (New England asters), *Penstemon digitalis* (foxglove penstemon) and *Solidago nemoralis* (gray goldenrod), or grown from seed, such as the intense blue *Penstemon strictus*, the annual snow-on-the-mountain (*Euphorbia marginata*) and sundrops (*Oenothera macrocarpa*). There are even some invasives, such as the Canada anemones (*Anemone canadensis*) that are kept happily in check by the less-than-ideal conditions under which they grow. Either way, Gillian doesn't worry about it too much. "I admire them for their tenacity", she says of the anemones, but her comment



Clematis virginiana

could apply to any of the tough native plants in her yard.

Demonstrating just how adaptable native plants are, Gillian tells a homeowner-nightmare story. Three years ago in July, as she was gardening out front, the oil furnace in the basement sprang a leak. The cleanup lasted for almost a year. The oil-soaked basement subsoil came out – and all the repair materials went in – through the basement window. The woodland garden on that side of the house was heavily trampled and somewhat contaminated when the temporary outdoor oil tank was finally emptied and removed. Amazingly, all sorts of things survived: wild ginger (*Asarum canadense*), bloodroot (*Sanguinaria canadensis*), swamp milkweed (*Asclepias incarnata*), Jacob's ladder (*Polemonium reptans*) and blue cohosh (*Caulophyllum thalictroides*), to name just a few.

The front garden took about seven years to creep up from the ditch to the front overhang. In 1993 Gillian lit upon the idea of bringing in gravel. Her success with it has convinced her that gravel is an excellent medium for all

kinds of plants, not just rock plants and alpiners. She sows seeds and plants out her seedlings directly into the gravel and waits to see what happens. Gillian isn't the only one who finds the results gratifying. Darcie McKelvey, former NANPS Seed Exchange Coordinator, always looks forward to Gillian's contributions. For example, Gillian has donated *Commelina erecta* (slender dayflower), a small plant with intense blue upper petals and a miniscule white lower petal, *Zizia aptera* (the less-common heart-leaf golden alexanders) and *Hypericum kalmianum* (Kalm's St. John's-wort). The latter, an attractive, yellow-flowered shrub, seeds itself plentifully into the gravel.

Gillian's front yard is a broad expanse of bright bloom with patches of gravel acting like stepping stones, but her backyard is divided into curvey formal flowerbeds surrounded by generous grassy paths. Here you walk, stop, admire, walk a few more steps, and stop again to gaze at an entirely different arrangement of plants. A huge stand of Joe-pye-weed (*Eupatorium fistulosum*), white snakeroot (*E. rugosum*) and lacey,

PHOTO COURTESY GILLIAN BOYD

pink queen of the prairie (*Filipendula rubra*) provides a dramatic contrast to turtlehead (*Chelone glabra*) and many lower-growing non-natives. In another bed the *Eupatorium* is growing in company with majestic, deep purple ironweed (*Vernonia novae-boracensis*), swamp milkweed (*Asclepias incarnata*), beebalm (*Monarda didyma*), black-eyed Susans (*Rudbeckia hirta*), purple coneflower (*Echinacea purpurea*), giant hyssop (*Agastache foeniculum*) and many other natives and non-natives. Yet another pleasing arrangement includes a *Cimicifuga* cultivar with red and white baneberries (*Actaea rubra*, *A. pachypoda*), wood poppy (*Stylophorum diphyllum*) and the oddly-named elm queen of the meadow (*Filipendula ulmaria*).

Leaves are one of the basic ingredients Gillian uses to keep her plants well-nourished and well-protected. (Planting what she loves and loving what grows for her are, of course, the other essentials to a healthy garden.) In the woodland at the back of the lot – where ephemerals such as *Hepatica acutiloba* and bloodroot enchant her in the spring – Gillian has collected mountains of leaves, mostly from her neighbours since she doesn't have enough of her own. After nearly 20 years of gathering leaves, her favourites are sugar and silver maples (*Acer saccharum* and *A. saccharinum*) with their soft blend of colours, and ash leaves (*Fraxinus* spp.) for their curly crispness. Some leaves are dumped into the composter; others are stuffed into plastic bags (at least 50 bags, at my count). Yet others are decomposing in a special reservoir. Even with this bounty Gillian worries, "I'm always concerned I won't have enough leaves". (This summer a tarspot fungus on local Norway maples [*Acer platanoides*] gave her some cause for concern and this fall

she has had to rely almost entirely on last year's leaf reserves.)

During the growing season she mulches her flowerbeds with dry leaves to conserve moisture, fill gaps, and keep the worms happy. When digging or planting she always works them into the soil. In November, after the flowers have died or been cut back for the winter, Gillian piles masses of damp leaves that have slowly been rotting inside their bags on top of the beds. After that she spreads her own compost. She hopes that field mice won't do too much damage if they take up residence. Over the years she has twice found their beautifully-made, domed nests after the snow has gone and been rueful about the resulting chewed plants – *Phlox subulata* and alpine marsh violet (*Viola palustris*). Luckily, the plants recovered. In fact, the violet, despite its name, is thriving almost too well in the dry conditions. Leaves are never removed in spring but continually rot down and feed the soil.

Gillian gardens not only for herself – and anyone lucky enough to be invited to sit on her back patio – but for the wildlife as well. Her American bittersweet vine (*Celastrus scandens*)

cradles a robin's nest. Siskins and orioles like to collect fibres from the swamp milkweed stems for nest material. A half-dozen rose-breasted grosbeaks arrived last spring and spent a day feasting, bathing and relaxing in her garden before moving on. While we chatted, a tiger swallowtail butterfly flitted from plant to plant – no doubt delighted with the embarrassment of riches here.

Preaching what she practices, Gillian takes every opportunity to give talks on organic, native wildflower, and butterfly gardening and, through her connection with the Ottawa-Carleton Master Gardeners, she contributes articles to the *Ottawa Sun*. She has also been involved with educational projects such as the wildflower meadow area at the Baxter Conservation Area. There she enjoyed five years of planting, digging, and learning first-hand about other native plants and their different habitats.

In an era of serious concern for the health of our environment, Gillian does her bit, which is no small contribution. May we all spend our retirement in such useful, satisfying and delightful pursuits.

Irene Fedun is the editor of the Blazing Star.



The statuesque, white-flowered Filipendula ulmaria shares a corner of Gillian Boyd's backyard with Solomon's seal (Polygonatum biflorum), ostrich fern (Matteuccia struthiopteris) and others.

PHOTO COURTESY GILLIAN BOYD

NANPS Seed Exchange

Our native seed exchange has a heritage! Looking back at the 1992 winter edition of *Wildflower*, I came across the Seed Exchange list for that year. It was interesting to study the species list offered, many of the same things offered today but also some plants I have never heard of. What was equally interesting was the list of donors – some of whom are still donating 14 years later. I recognized many familiar names: Betty Aspinall, Tom Atkinson, John Crow, James Hodgins, Larry Lamb, Paul McGaw, Robert Muma, and Gail Rhynard. It is an honour to be following in their footsteps.

Sincere thanks to all of you who have already sent in seed. Major thanks as well to Howard Meadd, the Director of our Seed Exchange, who continues to shoulder most of the tasks, and to Greg

Hagan and Ruth Zaugg who assist.

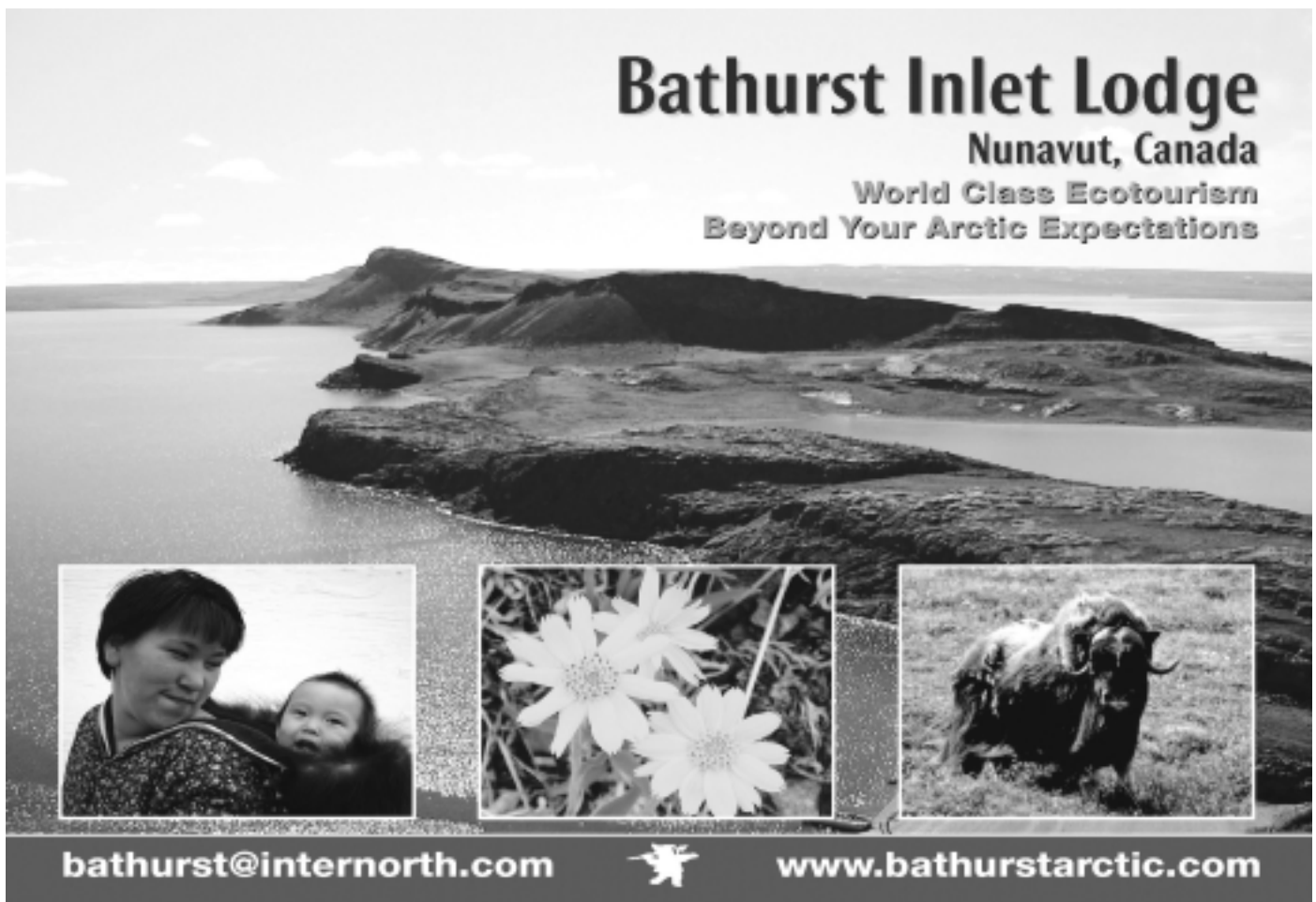
For new members or those who haven't yet tried to grow plants from seed, it is quite an easy and rewarding activity you can start in January when the seed packages are sent out. Members may request up to 15 packets, 30 if you donated seed or spores to the Seed Exchange this year. The cost is nominal. The **deadline for requests** from this issue of the *Blazing Star* is **January 14th, 2007**.

On a personal note, I had great success this year with *Solidago rigida* (stiff goldenrod) and *Liatris cylindracea* (cylindric blazing star) from Ruth Zaugg's garden, the *Sisyrinchium montanum* (montane blue-eyed grass) from Rolf Hertling's garden, and *Cephalanthus occidentalis* (button bush) from Judith Harris.


The *Hibiscus moscheutos* (swamp rose mallow) started in 2004 was in continuous bloom from July, as was the stunning *Cirsium muticum* (swamp thistle) grown from seed donated by Wayne Buck in 2005. The pots of *Cimicifuga racemosa* (black cohosh) are over-wintering, as past experience tells me that seed planted in 2006 may not emerge until 2007. I am curious about the experience of those of you who requested seed last year. Please send me a note at seeds@nanps.org and let me know how it went.

Does anyone have seedlings from the *Uvularia grandiflora* (bellwort) seeds donated in 2004?

Darcie McKelvey



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Sub-arctic Wildflowers – Yellowknife Style

by Michael A. Fournier

Illustrations by Bonnie Fournier

Canada's boreal forests produce a wealth of botanical treasures. Family groups with abundant representatives include the orchids, wintergreens, and composites. In the open subarctic woodland near Yellowknife, Northwest Territories, 150 kilometres (90 miles) south of the treeline, many of these species approach the northern limits of their range.

The short cool summers at this latitude are offset by long hours of sunlight and thus provide an ample period for growth. However, the blossom period for many is brief. Few wildflowers (cloudberry, *Rubus chamaemorus*, and bog rosemary, *Andromeda polifolia*) bloom before late May. Most, such as large-flowered wintergreen (*Pyrola*



grandiflora), fairy slipper (*Calypso bulbosa*) and paintbrush (*Castilleja passerinum*), do not bloom until June. Others – shy maiden (*Moneses uniflora*), fireweed (*Epilobium angustifolium*) and sparrow's egg lady slipper (*Cypripedium passerinum*) – flower in mid-July. A handful of late-bloomers wait until late July, including hooded lady's tresses (*Spiranthes romanzoffiana*) and skullcap (*Scutellaria galericulata*), or early August (bur marigold, *Bidens cernua*) to show their splendour. The pale corydalis (*Corydalis sempervirens*) surpasses all others in length of blossom period. In the Yellowknife area, the first flowers appear in early June, and some plants produce blossoms into early October. The warm shades of pink and yellow finally disappear with the first winter snows.

The subarctic summer may be short, but it is a time of incredible biological

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abundance. The blossoms of wildflowers compete for the eye of the nature lover with the flashes of colour that arrive with the vast numbers and diversity of migratory birds. The birds come here to nest and raise their young attracted by, among other things, an unlimited supply of energy-rich food – the insects. Herein lies the greatest challenge to all who wish to glimpse the jewels of the forest – flora and fauna alike. Travel through the forest, for those without the advantage of winged flight, can be a physical and often psychological battle of epic proportions. Terrain that includes thick brush, damp forest, and sucking bog, the home of the round-leaved orchid (*Orchis rotundifolia*), one-sided wintergreen (*Pyrola secunda*), and green wintergreen (*Pyrola virens*), is guarded by hordes of black flies and

mosquitoes. Roadsides and other open areas that are more easily passable, and support a wide variety of species such as paintbrush, fireweed, arnica (*Arnica alpina* and *A. lonchophylla*), and white and pink pussytoes (*Antennaria nitida*, *A. rosea*) are in turn staunchly defended by the horsefly and deerfly.

Choose the time and type of day unwisely and a simple walk through the forest can become a perceived (or real) test of survival. Stopping for even a brief glimpse of a flower may be more than one is willing to endure. But all is not lost for the intrepid boreal botanist! To reduce the insect onslaught to a relatively minor annoyance, choose mid-morning to mid-afternoon of sunny, warm and breezy days. Even at

these times repellent, hat, bug-jacket and light gloves should be in your pack along with field books and camera.

Despite the obstacles the boreal forest may place in the wanderer's path, the botanical treasures to be discovered in this vast ecoregion of North America make the experience worthwhile. The time and effort spent in search of the often-elusive flower gardens hidden among the spruce and sphagnum produce a deep appreciation in the seeker.



Mike and Bonnie Fournier have lived in Yellowknife, Northwest Territories for over 20 years. They enjoy many outdoor activities, particularly birdwatching, and observing butterflies and wildflowers. Bonnie is a self-taught artist and recently completed a series of paintings of boreal wildflowers and local butterflies and moths.



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Milkweeds

by Wayne and Graham Buck

Did you notice the large numbers of monarch butterflies around this past summer? It got me thinking about milkweeds (*Asclepias* spp.) which are critical to the survival of the monarch, a tropical butterfly that has learned to exploit this plant to greatly expand its range northward.

Monarch larvae will feed only on milkweed leaves. The sap contains toxic glucosides that become concentrated in the tissues of the monarch caterpillars and these make them unpalatable to birds – a clever survival strategy.

Monarchs have a lot of choice when it comes to host plants. The United States Department of Agriculture website lists 76 *Asclepias* species in North America. In Waterloo, Ontario we have four. Originally there were 12 in this province but only 10 remain. Of those, seven grow on our farm.

The milkweed genus, *Asclepias*, is named for Asklepios, the god of healing, because First Nations peoples and colonists exploited several species for their healing properties. As an example, the thick tubers of butterfly milkweed (*Asclepias tuberosa*) were used in the treatment of pleurisy. The milky sap was also used to treat warts. The downy seed parachutes -- noted for their buoyancy (six times more buoyant than cork) and their warmth (five times warmer than wool) – were used to manufacture life jackets. Fibres in the stems of some species are so strong North American natives used them to make textiles, rope and twine.

Milkweeds have a unique blossom. The petals of each flower are shaped like a hood with a horn in the centre. Look closely at this flower – there are five slits in the flower column. At the top of each slit is a black clip called a corpusculum. To each corpusculum are attached two pollen sacs or pollinia. Nectaring insects' legs slip into the slits. As the insect struggles to free its trapped limb, it pulls two pollen sacs with it, each with enough pollen to fertilize a whole milkweed pod. The pollinia are carried



ILLUSTRATION BY KIM DU

to other milkweed flowers where they are slipped into the flower column and fertilize that plant.

Selected Milkweeds Native to Eastern North America

ON – species still growing in the wild in Ontario

WR – species native to Waterloo Region

Asclepias exaltata

Poke milkweed

(ON, WR) - long, drooping, creamy-white flowers in June and July; long, tapering foliage; seed development in August and September; grows in oak woodlands, forest margins and openings, and hardwood forests found in 25 eastern United States, Ontario and Quebec

Asclepias hirtella

Tall green milkweed

(ON) – once abundant in Essex County, but has been reduced to one plant in Windsor, Ontario; can still be found in Louisiana north to Minnesota and south to Georgia; blooms from May to July in savannas, prairies and thin woods; the sap of this milkweed is not milky

Asclepias incarnata

Swamp milkweed

(ON, WR) – pretty pink, summer-blooming flowers of four-20 umbels per plant; in marshes, open swamps, stream banks and moist meadows but adaptable to average gardens; grows in sun to partial shade; rather tall at 50-150 centimetres (two to four feet); clump-forming; found in every state and province east of the Mississippi River except Mississippi and Newfoundland

Asclepias ovalifolia

Dwarf milkweed

(ON) – some plants are less than 30 centimetres (one foot) tall; in Ontario, confined to bur oak savannas around Rainy River; also native to Michigan, Illinois, Wisconsin and Minnesota

Asclepias purpurascens

Purple milkweed

(ON) – one of the most beautiful milkweeds; deep purplish-red blossoms with one to three umbels in June and July; sun to partial sun, moist to dry areas; naturally present in oak and shrub savannas, thickets and prairies; now uncommon in Ontario, ranging from Louisiana north to Wisconsin, east to

the New England states and south to Georgia

Asclepias quadrifolia
Four-leaved milkweed

– a short early bloomer (May and June) with white or pinkish flowers; seeds set in August and September; presently found in mixed forests in South Carolina north to New York, west to Illinois, south to Alabama; extirpated in Ontario

Asclepias rubra
Red milkweed

– dull red to lavender flowers from June through July; confined to bogs, pocosins (evergreen shrub bogs of the coastal plain) and savannas; ranges from Louisiana east to Georgia north to New Jersey

Asclepias sullivantii
Sullivant's milkweed

(ON) – stalk-less leaves with a prominent red vein; underleaf smooth, not hairy like



Butterfly milkweed with wild bergamot (Monarda fistulosa), Indian grass (Sorghastrum nutans) and little bluestem (Schizachyrium scoparium).

PHOTO COURTESY GRAHAM BUCK

the common milkweed; pink flowers with umbels occurring at the top from June to July; prefers moist prairies, meadows and roadsides; grows east of the Mississippi around the Great Lakes states and Ontario

Asclepias variegata
White milkweed

- white flowers from May to June, seeding from July through September; open woods and woodland margins from Louisiana east to Florida, north to New York, west to Illinois; native to Niagara Escarpment but extirpated from Ontario

Asclepias verticillata
Whorled milkweed

(ON) – slightly taller than butterfly milkweed; white flowers from June to September, and narrow whorled leaves; grows in dry open woods, and on sandhills and rocky slopes in every state east of Mississippi except New Hampshire and Maine

Asclepias viridiflora
Green milkweed

(ON) – green umbels in dense, hanging clusters from June through August; found on alvars, sand prairies, dunes and waste ground; apart from Ontario, grows in states east of the Mississippi from New York south

Asclepias viridis
Spider milkweed

- green-flowered milkweed found in dry pinelands, cedar glades and prairies from Louisiana east to Georgia and north to southern Ohio; also known as antelope horn milkweed because of the prominent horns of the flowers

Asclepias syriaca
Common milkweed

(ON, WR) – the one we see 99.9% of the time; spreads quickly by rhizomes in fields, roadsides, prairies, savannas

Asclepias tuberosa
Butterfly milkweed

(ON, WR) – striking orange blossoms from May through August; narrow, glossy, dark green foliage; grows in sunny, dry, sandy locations; found in every state east of Mississippi plus Ontario and Quebec; a favourite with butterfly gardeners



Green milkweed (Asclepias viridiflora)

PHOTO COURTESY GRAHAM BUCK

Collection and Prep of Milkweed Seeds

Collect milkweed seeds when the pods are ready to burst. Test a few pods by gently squeezing them; if they are ready they will slightly split open. You can assume most of the plants in a population have the pods ready at the same time so you don't have to test every one. Other things to look for: some pods may have opened before you arrive, and milkweeds often lose their leaves at the same time as the seeds are formed.

Jane Murphy recently discovered a great way to clean the fluff from milkweeds: "After collecting the pods, store *Asclepias* species in a dry place in a paper bag until the pods open and the seeds with all their attached silk are released. Remove the empty pods, put all else in a plastic bag, close the top and shake vigorously or hit it on a hard surface until the seeds fall away from the silk. On a breezy day, open the top of the bag and the fluff will fly away, leaving perfectly clean seeds in the bottom. It only works with a plastic bag, not paper, I suppose because the fluff is attracted to the plastic."

Graham Buck describes his own method: "I have always opened the pod while still moist and pulled the seeds from the silk with my fingers. It helps a lot to cut seven millimetres (1/4 inch) off one end of the pod with scissors first. That way the seeds and silk dangle and are easier to work with. A silk thread attaches the silk and seeds to each end of the pod so that when you open it they remain inside the pod and it's harder to reach the ones at the back."

Graham Buck got his parents, Wayne and Lynda, interested in native plants by planting hundreds of species on their farm. Today the team of three operates Nith River Native Plants, a nursery and landscaping company, from their property in New Hamburg, Ontario. After a decade in business, they have over 1.7 hectares (over four acres) of native plants growing in what was once pasture. The companion plant arrangement of the gardens is unique: all the plants are grown with the plants they are found growing with in nature. The natural communities they've established include a sand barren, wet prairie, dry prairie, forest and many others. This landscaping style is a useful educational tool for beginners to expert botanists unfamiliar with some of the rarities.

Weeds I Have Known

by Darcie McKelvey

I've had plenty of time to think about weeds. In fact, probably 75% of the time I spend in my garden I am weeding. When I moved onto my property I decided to bulldoze the large lawn in the backyard to re-create a native prairie garden. Sometimes I think this was inspired; more often I think it was the most foolhardy thing I've ever done.

bunches of what I think is *the* most beautiful native grass in the world. Perhaps my weeding experience would have been less intense if I had chosen a faster-growing native grass to predominate.

In 2004, I had such a barrage of weeds I resorted to the triage methodology. I decided that, at least for 2004, the number one enemy was Canada thistle (*Cirsium arvense*), which, despite its



PHOTOGRAPH COURTESY DARCIE MCKELVEY

THE most beautiful grass in the world - Bouteloua curtipendula

I moved during the summer of 2003. In the fall (during the NANPS Clear Creek excursion), I purchased some native plants from Orford Ridges, most of which I still have in my garden three years later: three *Allium cernuum* (nodding wild onion) that have mothered many seedlings, three *Ratibida pinnata* (gray-headed coneflower), and three *Asclepias verticillata* (whorled milkweed), which have spread nicely. I also got 72 plugs of *Bouteloua curtipendula* (side oats grama) that were quickly installed before winter. The following spring, I could find only 12

common name, is not native to Canada. It was followed by field sow thistle (*Sonchus arvensis*), bull thistle (*Cirsium vulgare*), stinging nettle (*Urtica dioica*), and burdock (*Arctium minus*). Unfortunately, I didn't realize until August how serious the Canada thistle problem was. For those unfamiliar with this badly named plant, the root system lies at least 45 centimetres (18 inches) underground, and travels in all directions. It can be pulled out, using well-padded gloves, but you'll only get the top of the plant leaving the roots snidely laughing at your efforts. A friend

confided to me that after she spent 10 years pulling a single Canada thistle from her garden, the plant finally gave up.

I know now to start seriously pulling *C. arvensis* in early May. Any time I'm walking through the garden and I spot one coming up, I drop whatever I'm doing and grab my well-padded gloves. Two years later, I am still weeding it out, but it is weaker and much less prevalent. I am hoping that by 2012 I will finally have beaten it into submission. To placate wildlife that miss it (goldfinches eat the seed, bees sip the nectar), I have planted two native members of the thistle family. From NANPS Seed Exchange seeds I have grown *Cirsium muticum* (swamp thistle) for the bog, which turned out to be stunningly beautiful, and I purchased *C. discolor* (field thistle) from Native Plants in Claremont.

That first year, when the lawn was gone and 95% of my prairie garden was a blank slate, I had a lot of plants that some would consider weeds: various fleabanes (*Erigeron* spp.) and *Verbascum thapsus* (common mullein). I welcomed the black-eyed susans (*Rudbeckia hirta*) that arrived uninvited. The common white yarrow (*Achillea millefolium*) appeared in small patches here and there, along with *Solidago canadensis* (Canada goldenrod). A few native asters livened up the yard in the fall – New England aster (*Symphotrichum novae-angliae*) and heath aster (*S. ericoides*). In my eyes, it looked okay. The native bees liked all of them, the daisy fleabanes early in the season, the *Rudbeckia*, *Achillea* and *Verbascum* in the summer, and the asters and goldenrod in the fall.

I grew as many plants as I could from seed, which was quite a few, but I'm dealing with 700 square metres (7,500 square feet) of space and I soon realized my prairie garden was going to be more than a one-act play.

It was in 2005 I came to know horseweed or *Conyza canadensis* (formerly *Erigeron canadensis*). This is a native, which to me is a very relevant factor in my decision to yank a plant or allow it to join the garden team. For

example, *Mentha arvensis* (wild mint) and *Anemone canadensis* are allowed in my yard predominantly because they are natives which grew here before I came along. Horseweed, an annual, is fairly innocuous until July, when it spurts up and starts to bloom. The first year, I waited and waited for flowers to appear. Then I realized that the flowers are so inconspicuous (should I say ugly?) that I had totally missed them and the plant was now seeding all over. Do I need to tell you that horseweed is still a big player in my garden? I have come to appreciate that it offers some protection to other wildflowers from the UV rays in July and August by the sheer fact that it takes up space around them. I don't find it on my property in more established areas. So I think (and hope) it will not be a problem once my native grass really gets going and my backyard classification moves up the scale from "disturbed" or "waste area" to something more inviting.

I am still pursuing *Bouteloua curtipendula* (and other shorter native grasses such as *Bouteloua gracilis* [blue grama], *Panicum scribnerianum* [Scribner's panic grass], *Muhlenbergia mexicana* [leafy satin grass], *Sporobolus heterolepis* [northern dropseed], and *Danthonia spicata* [poverty oat grass]) like an ardent suitor, but mine is a patient suit. I scattered significant quantities of seed of *Bouteloua curtipendula* and *Bouteloua gracilis* in 2004, and my attentions were rewarded with some single blades in the second year. More seed scattered in 2005, and the former blades are bunching out into something that counts. The clumps of grass are still pretty sporadic, but at least things are going in a direction I like.

Getting back to stinging nettle, I have changed my mind more than once about whether to leave it or to pull it. At one point, I thought it was a food source for tortoiseshell butterflies, question marks, and the eastern and satyr commas. This mitigated in its favour, and I allowed patches of it throughout my garden despite a few painful encounters. However, I currently believe that native wood nettle (*Laportea canadensis*) is better

loved by butterflies so the stinging species has been yanked at least for this year.

Plants previously left to roam are now proving problematic. Yarrow will grow everywhere – in the shaded forest edges, under the hot sun, and anywhere in between. It forms such a vicious mat that nothing else could possibly germinate or grow in territory it has claimed. So Enemy Number One for 2006 became *Achillea millefolium*, although it was a tough choice between this and bladder campion (*Silene vulgaris*). I like the look of bladder campion, but have you ever tried to dig it out? The white roots go deep into the ground, and fork off into side roots that go even deeper. Another plant to watch out for is wild marjoram (*Origanum vulgare*). Coming from the mint family, it has promiscuous roots. It's fragrant and popular with bees and butterflies, so I let it go in 2005 only to find that it had replaced a large portion of my lawn in 2006. Pulling it out didn't work, so I finally covered a large area with black plastic and horticultural fabric.

I've concluded that what I call a weed changes from year to year, and depends on many factors. Firstly, being native to my area is usually a winning card unless a species is very aggressive. I will always have room for *Solidago canadensis* somewhere, but I religiously deadhead it and dig it out where it gets unruly. Secondly, plants that are useful to bees or birds are "keepers" in my yard. I have seen woodpeckers and indigo buntings on my non-native *Verbascum*, so I leave them where they grow. Thirdly, species that aggressively take over territory or over-ride other things grown from seed have no place in my yard. I have pulled out all the *Boltonia asteroides* (false aster, northeast U.S. plant with hundreds of small daisy-like flowers) and will not grow it again, despite its attractiveness. Fourthly, I'm a push-over for fragrant flowers, and the unpleasantly scented and non-native motherwort (*Leonurus cardiaca*) simply had to go. Finally, there is the ugliness factor. Whether or not I find a species attractive may determine its fate – but I suspect that's true for everyone.

Darcie McKelvey is a former NANPS Board Member who gardens in northeast Caledon, Ontario.

turn from bluish-green to reddish-brown at first frost. Its fine foliage and distinctive upright flowers move from various shades of red to deep purple. During the winter, little bluestem flowers are blond fluffy plumes. They stay intact for most of the winter, adding sculptural beauty to the snowy landscape.

Though dependable seed harvest is difficult, some report yields of 90 kilograms or more of seed per hectare (200 pounds per acre) when *Schizachyrium scoparium* is cultivated in rows. I prefer to divide the clump base in the spring. A three-year-old clump, for example, can yield as many as 30 or more new little plants.

My partner, horticulturist Martin Quinn, calls little bluestem the grass for dry locations. Perfect for prairie restorations, home gardens and meadow plantings, *Schizachyrium scoparium* creates a stunning presence in mass plantings. It is also an excellent choice for natural transitions from formal garden areas to fields or meadows. Whether gardening with native grasses at home or restoring an existing prairie, we value little bluestem for its resilience and outstanding ornamental beauty.

Writer Catherine Macleod lives and gardens with grass hybridizer and horticulturist Martin Quinn in Kincardine, Ontario. They co-authored Grass Scapes: Gardening with Hardy Ornamental Grasses, published by Whitecap Books in Canada and Ball Publishing in the U.S. Contact her at cmacleod@hurontel.on.ca.

Renewals and Volunteer Opportunities

Renewal time!

All members with current memberships are eligible for a **draw for one free year** (membership extension) if you send in your renewals by January 31st, 2007. Support NANPS - renew today!

Request for volunteers: Driver + helper needed for May 4th, 2007 (the day before the NANPS Plant Sale) to pick up plants. It's an all-day trip. Must be comfortable with driving a cube van. Contact volunteer@nanps.org or call the NANPS voicemail at (416) 631-4438.

Calendar of Events

December 13-14, 2006

MIDWEST INVASIVE PLANTS CONFERENCE
Milwaukee, Wisconsin
For details: www.ncwss.org.

January 18, 2007

LEAF TORONTO/URBAN FOREST NETWORK AGM
Gladstone Hotel,
Toronto, Ontario
Multi-media presentation by keynote speaker Paul O'Hara called The Faithful Witness: The Journey of the White Pine in Southern Ontario. Call 416-413-9244 or visit www.leaftoronto.org for details.

March 8-10, 2007

12TH WATER CONSERVATION / XERISCAPE CONFERENCE
Albuquerque, New Mexico
Contact scott@xeriscapemn.com at the Xeriscape Council of New Mexico.

April 10-12, 2007

MANOMIN WATERSHED CONFERENCE
International Falls, Minnesota
Exploring ways to protect and enhance the environmental health of the Manitoba, Ontario and Minnesota basins.
Visit www.manominconference.ca.

May 7, 2007

NANPS ANNUAL PLANT SALE
Markham Civic Centre,
Markham, Ontario
Look for advance sale information on the website in January: www.nanps.org.

August 17 – 19, 2007

WILD ONES ANNUAL MEETING
Dayton, Ohio
Hosted by Greater Cinti Wild Ones,
www.cincinnatiwildones.com/wildones.

NANPS Website Update

Welcome to the new, improved NANPS website at www.nanps.org!

While much of what you enjoyed before is still to be found here, we are making further enhancements. These include previews of upcoming newsletter articles.

We welcome your comments and suggestions. Please email us at nanps@nanps.org.

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Your donations and membership dollars help NANPS to study, conserve, cultivate and restore North America's native flora. Members receive our quarterly newsletter, the *Blazing Star*, and are eligible for NANPS-sponsored excursions and the Seed Exchange. NANPS is a registered charitable organization (no. 130720824 RR0001) founded in 1984. Donations to the Society are tax-creditable in Canada. Tax receipts will be issued for donations of \$20 or more.

- \$20 / 1 calendar year (Jan.–Dec.)
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- \$60 / 3 years (send me a free NANPS pewter pin as a bonus for my 3-year membership)
- \$200 Sustaining Membership (includes a Canadian tax credit for \$100 and a 5-year membership)

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