Summer/Fall 2000

The Blazing Star

Newsletter of
the North American Native Plant Society

Harvesting and Storing Wildflower Seed

by Paul McGaw

Whether you collect seeds from native plants from your own garden or wish to in the future, I would suggest starting the seed collecting process with spring and summer rambles. Equipped with Newcomb's ***Wildflower Guide*** and/or Peterson and McKenny's ***A Field Guide to Wildflowers***, identify those native plants whose seeds you wish to harvest. The best clue to the conditions the plant will prefer in the garden is its site in the wild. Take note of the soil conditions, light/shade regime, and moisture. Most importantly, note what other species make up its particular plant community.

Remember to collect only 10% to 15% of the seeds from any one area or plant colony. Wild plants must be given a chance to naturally regenerate.

Many species' seeds are ripe and ready to be harvested about a month after flowering. For example, in the southern Great Lakes area, wild geranium (*Gerantium maculatum*) flowers around the end of May and its curious spring-loaded seeds are dark brown and primed for dispersal around the end of June. Wind-dispersed savannah species generally time seed ripening to take advantage of strong autumn winds blowing unimpeded through leafless trees. Butterfly milkweed (*Asclepias tuberosa*), which flowers in July, ripens its seeds slowly for dispersal in October's winds. The seeds of late-blooming heart-leaved aster (*Aster cordifolia*) ripen quickly for dispersal at the same time.

Wildflower seeds are usually ripe when the seed pods start to turn brown and cracks or splits starts to appear. Some plants such as the wild geranium, large-flowered bellwort (*Uvularia grandiflora*), and the jewelweeds (*Impatiens capensis* and *I. pallida*) eject their seeds upon ripening. In these cases, a paper bag tied around the seed pods will catch the seeds when ejected.

Collecting ant-dispersed seeds can also present challenges in timing. Bloodroot (*Sanguinaria canadensis*) and several early blooming woodland sedges (e.g. *Carex pedunculata*) combine their seeds with high-calorie ant snacks to entice ants to carry the seeds to their nests. The only practical way to collect woodland sedge seeds is to monitor them often and test to see if the seed pulls away easily as you run your fingers up the stalk.

Little round seeds in pods or capsules which open at the top wait until strong gales shake them loose. These are some of the easiest seeds to collect if you don't wait too long. Merely tip the capsule or seed head and pour the seeds into a little paper bag or envelope. Columbine seeds are like this, as are wild bergamot (*Monarda fistulosa*). Native grasses and sedges of sunny meadows and prairies are also extraordinarily easy for the beginner to collect, though perhaps challenging to identify. The seed heads turn gold or tan when ripe and dozens of seeds can be collected merely by running the seed heads through your fingers.

Fleshy fruit are usually ripe when they become soft, turn their final red or black colour, or start to drop. The covering can be removed by soaking the seed in warm water for 15 or 20 minutes and scrubbing with a stiff brush.

Collect seed on a dry, still (not windy) day in paper bags. Make note of the name, scientific binomial if you know it, the collection date, and the location.

Clean the seed as much as possible. A series of sieves will help to seperate a lot of the debris. Gentle blowing will often remove much of the chaff.

Package the clean seed in small paper coin envelopes or glassine stamp envelopes. Seeds are alive and need to 'breathe'. Do not store seeds in plastic baggies, or film cannisters, or other completely impervious containers. If the seed is very fine, you can enclose them in a folded paper within the envelope. Nearly all meadow and prairie seed is best stored in warm dry conditions. Ordinary house atmos-

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NANPS AGM - Saturday, October 14, 2000 at Montgomery's Inn, Etobicoke

Spring 2001 Plant Sale

Saturday, May 12, 2001
10 am - 4 pm

Civic Garden Centre
777 Lawrence Avenue East
(at Leslie Street)
North York, Ontario

Spring woodland flowers, summer meadow flowers, pond edge species, sedges, ferns, shrubs, and trees. Hundreds of species, thousands of individuals plants. Mark the date on your calendar now....

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N.A.N.P.S. Update

I am delighted to tell you that we have had a wonderful first half of the year 2000, beginning with a great display at the Canada Blooms garden show. In May we held another successful native plant sale, including a large selection of white and red trilliums rescued from a woodlot about to fall under the developer's bulldozer. Our thanks to all those volunteers who helped us with this rescue and at the plant sale. If you are aware of any developments threatening native plants, where a rescue might be possible, please let us know. Perhaps we will be able to help out.

We are hoping to develop, with your co-operation, a "telephone tree". With this in place, we will be able to call on many members in a short period of time to secure volunteers for plant rescues, and any other activity requiring helping hands.

Congratulations to Larry Cornelis for his winning suggestion of the **Blazing Star** for our newsletter.

The Board has been strengthened by the addition of three new people. We are delighted to welcome Sarah Augustine, Cathy Hayes, and Michael Morgan Holmes.

In June, the Board met to discuss and develop long range goals and objectives. I will provide more specifics at our annual general meeting on October 14th. I look forward to spending some time with you there.

Sincerely,

Jim French, President

AS MANY OF YOU KNOW, the Board of Directors of the North American Native Plant Society recently decided to sell the magazine *Wildflower*, which NANPS (formerly as the Canadian Wildflower Society) had published for more than 15 years. The Board made the decision to sell to long-time editor Jim Hodgins after much deliberation, and we would like to share our thoughts here with NANPS members.

Over the years, *Wildflower* has grown into a beautiful, information-packed publication--indeed it has earned its place as **the** North American magazine of wild flora, the voice of a growing movement to celebrate, cultivate, and conserve our precious botanical heritage. NANPS is proud to have supported the magazine for so long, an accomplishment made possible by the commitment of many people, most notably the magazine's editor, Jim Hodgins, and art director, Zile Zichmanis, and the magazine's many subscribers.

With increasing costs and difficulties in securing funding, the Society was faced with the following unenviable choices: 1) make the magazine less costly to produce by reformatting and /or publishing fewer issues; 2) sell the magazine; or 3) cease publication (the least desirable option). Option 1) would have entailed finding a new editor as Jim Hodgins was unwilling to continue editing a down-sized publication.

When Jim Hodgins offered to purchase the magazine, we felt that this offered readers the best hope of continuing to receive the high-quality magazine we've all grown to love and value.

The NANPS Board did not come to this decision lightly, nor without a great deal of soul searching. The magazine has been the focus of our identity and our financial energies for a very long time. We wish the new owner, Green Ink Inc., much success in the effort to publish this vital voice--long may *Wildflower* prosper.

Board of Directors, NANPS

Back issues of Wildflower

Back issues of *Wildflower* magazine can be ordered from the North American Native Plant Society. To enquire about the availability of a specific issue, please e-mail **nativeplantsoc@yahoo.ca**

Back issues are **$5** each, except:

Three-for-$10 Special: any 3 from this group:

- Vol. 4(2) Bloodroot, trout lilies
- Vol. 4(4) Caribbean issue
- Vol. 5(4) Hardy cactus
- Vol. 6(1) Prairie restoration

Collectors' Favourites - $10.00 each
Limited quantities

Other Publications:

Growing Canada's Floral Emblems, L. C. Sherk, 1988. 35 pp. 14 colour photos. $5.00

Factsheets:

One page, double sided; single copies free to members, bundles free to affiliate groups.

1. ***Native Plant Gardening: an introduction to the benefits of landscaping with nature*** (1999)
2. ***Native Trees for Gardeners in the Great Lakes Watershed*** (1999)
3. ***Butterfly Gardening*** (1999)
4. ***Sources of Native Plants in Ontario*** (1999)

Summer 2000 Wildflower Garden Tour

Saturday, August 26, 2000
10 am to 4 pm

A self-guided tour of nine private gardens in the city of Toronto: savannah gardens, woodland gardens, and meadow gardens.

Admittance:
NANPS members: $10.00
Non-members: $15.00
To order tickets, send cheque or money order to:
NANPS
PO Box 84, Station D
Etobicoke, ON M9A 4X1

Car-pooling: We have received enquiries about the tour from people who do not have cars. If you have space in your vehicle and are willing to share, please call 416-680-6280 as soon as possible.

The Seed Exchange

The seed exchange is available to members of the North American Native Plant Society. The exchange relies on the donation of native seeds by members.

To cover cost of packaging and postage, packets are $1.00 for first packet, 0.50 for additional packets. Limit 10 packets per order. Please include alternative choices as supplies of some species are very limited. We reserve the right to make substitutions.

We strongly advise you to grow only those species which are native to your bio-region.

Available Now!

Species available at time of printing:

Field pussytoes *Antennaria neglecta*
Douglas Counter, Etobicoke
Wild columbine *Aquilegia canadensis*
Don Morton, Etobicoke
Common wood sedge *Carex blanda*
Trish Murphy, Etobicoke

Please send orders and donations of seed, clearly labelled, to:

The Seed Exchange
c/o Paul McGaw
43 Anaconda Avenue
Scarborough, ON M1L 4M1

Make cheque or money order payable to North American Native Plant Society.

In short supply:

Because woodland plants tend to produce fewer seeds per plant than do plants of sunny places, the Seed Exchange runs short of seeds of popular woodland species such as red baneberry and Solomon's seal. Please contribute what you can, but remember, do not over-collect from wild stands.

Butterflyweed and golden Alexanders are popular beauties perennially in short supply. Last year we ran short of wild bergamot and eastern columbine, flowers which produce lots of easy-to-collect seeds. Yet, because they are quick to germinate and adaptable, they are ideal plants for beginning wildflower growers, and demand outstripped supply.

Please do not hesitate to send in seeds just because you think we may already have that species. We can *always* use more.

Wild Seed? Collected Where?

If seeds have been collected from indigenous wild stands, please let us know where the seed originated by indicating the county, township, or nearest town, e.g. " from Southwold Township," or "collected south of Parry Sound, Ontario." This is helpful to people doing restoration work. If no location of origin is indicated, we will assume the seeds are from garden sources. Gardens in this context include naturalization sites.

Seeds also ripen in spring

Some spring blooming species ripen their seeds quickly. Others wait until fall. Don't be caught napping next year. Remember, seed collecting starts in the spring.

In the Great Lakes region, some of the earlier seeds to ripen are:

Prairie smoke	Pussytoes
Golden ragwort	Wild geranium
Spring cress	Woodland sedges

Hint!!

Small "coin envelopes" are a convenient size for storing a variety of seeds. Office supply stores shelve these not with mailing supplies but beside the cash boxes and coin wrappers.

Shade-grown coffee

Traditionally, the shrub that produces fine arabica coffee was grown as an understorey crop. The grower would leave a tall overstorey of mixed native trees to shade the coffee plants. This overstorey became an important habitat for tropical migrant birds wintering in coffee-producing regions of central and south America. The feeding birds, in turn, kept down insect infestations, reducing the need for pesticides on the coffee crop.

Modern monoculture coffee is grown without the shade trees and uses vast amounts of pesticides in its production. There is no habitat for the birds and they starve. If, in desperation, they visit the coffee plantation, they may be killed outright by poisoning. These birds are *our* birds, the brightly coloured insect-eaters that are so wonderful to see return in the spring: orioles and warblers, tanagers and fly-catchers. If you would like to ensure that they do return every spring, choose organically grown, shade-grown coffee whenever you are buying coffee beans and whenever you have the choice when indulging in a frothy cup of cappuccino. Shade-grown coffee beans are widely available in health food stores.

The coffee served at the NANPS Spring Plant Sale this year was generously provided by ALTERNATIVE GROUNDS, a distributer of fair trade, shade-grown coffees. ALTERNATIVE GROUNDS also runs a coffee house on Roncesvalles Avenue near High Park in Toronto. Next time you are botanizing or birding under the oaks in High Park, consider stopping in for an uplifting cup.

Alternative Grounds Coffee House and Roastery, 333 Roncesvalles Avenue. Toronto, 416-634-6335.

TM

New addresses:
As well as adding a new phone number and e-mail address, NANPS has changed its postal address. Please note that our new postal address is:
NANPS
PO Box 84, Station D
Etobicoke, ON M9A 4X1

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phere is fine for storing these seeds until you are ready to start the cold or cold-moist stratification process. (For a discussion of cold-moist stratification, please see "Sow Easy" in the Winter/Spring 2000 issue.)

There are some seeds which you should not allow to dry out. Marsh marigolds (*Caltha palustris)*, golden Alexanders (*Zizia aurea*), trilliums, and some other species of moist or shady places can be sown into small trays or pots of commercial seeding mix as soon as they are collected. They may not germinate until the following spring, after they have experienced their period of cold. Label the pots and protect them from squirrels and excessive drying until you are ready to put them in a cold frame or a refrigerator for the winter. Seeds which must not dry out are challenging to distribute through a seed exchange.

Seeds vary a great deal in how long they can be stored and still remain viable. The pea family is famous for the longevity of its seeds. Generally, you will find that, for columbine (*Aquilegia canadensis*) and plants from the Umbelliferae family, the germination rate drops rapidly. That doesn't mean you should discard all old seeds. Go ahead and sow them. Obviously, they have more of a chance of becoming plants than if they remain in the cupboard. But you shouldn't depend on a high germination rate. In fact, germination rates among native perennial seed can vary widely from year to year. The seed crop of a species one year may be widely infected with some disease. Weevils in acorns are large enough to detect but the problems in small seeds may be undetectable. This suggests you should collect seed often. And not get too discouraged if your propagating attempts fail one year.

Collecting fern spores is easy. Many ferns will shed ripe spores into an envelope with a gentle tap. Or collect some spore-bearing pinnae (leaflets) and let them dry inside an envelope. The dust-like spores will be shed as the specimen dries. Most fern spores can be stored in envelopes until you are ready to undertake propagating them. Ferns of the genus *Osmunda* are exceptional in that they need to be sown immediately. This genus includes royal fern (*O. regalis)* and interrupted fern (*O. claytonii*).

The greatest abundance of seed is available in the autumn. Bird-distributed fruits ripen as birds prepare for migration. Nuts mature as squirrels and chipmunks are preparing for winter. Seeds in inflated bladders which float on water often wait until water levels have recoverd from summer droughts before they are shed.

The Seed Exchange of the North American Native Plant Society does most of its distribution in early winter. If you would like to donate seed to the Seed Exchange, please mail cleaned and labelled seed into the Exchange by late January. It is greatly appreciated if the seed arrives already packaged in little envelopes with 15 to 20 seeds per envelope. Seed from the summer or fall of 2000 will not be distributed after May 1, 2001.

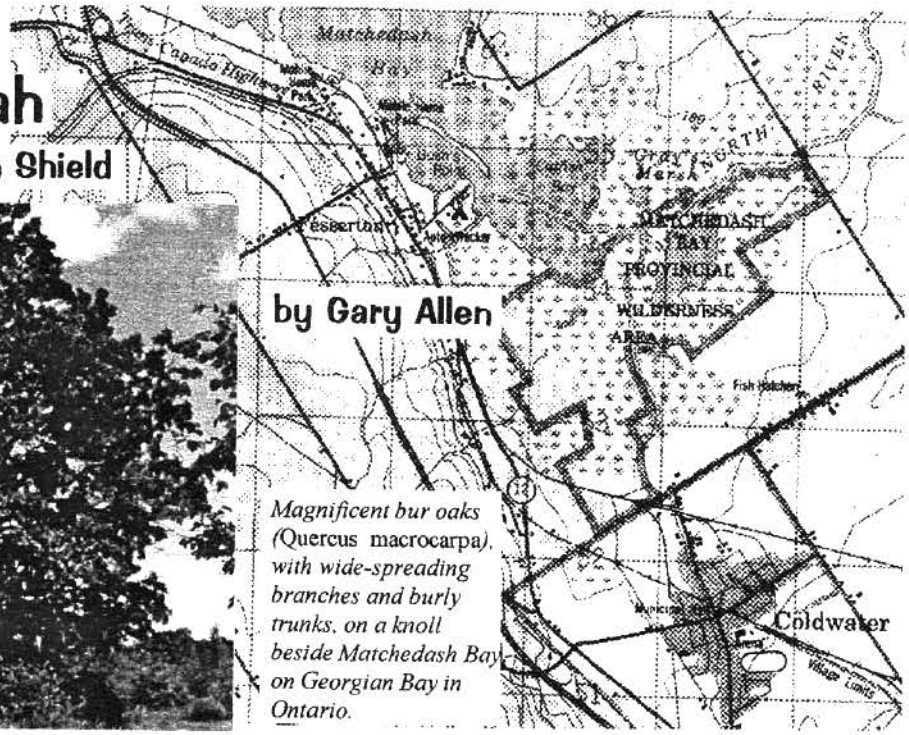
Paul McGaw is the President of the Toronto Wildflower Society, a former Director of the North American Native Plant Society, and a keen amateur entomologist.

*Fluffy, wind-dispersed seed heads of prairie and sunny meadow plants are easily collected. These are the seeds of ironweed (*Vernonia *sp).*

Restoration Site

Bur Oak Savannah

on the edge of the Canadian Shield



Magnificent bur oaks (Quercus macrocarpa), with wide-spreading branches and burly trunks, on a knoll beside Matchedash Bay on Georgian Bay in Ontario.

by Gary Allen

ALL THAT WAS LEFT OF THE ORIGINAL vegetation were the old and massively proportioned bur oaks, whose wide-spreading branches prove that they had grown to maturity in open savannah conditions. The granite knoll at the edge of the flat expanse of marsh of Matchedash Bay had been experiencing degradation since the first white settlement at the site in 1680. The site had been kept open by livestock grazing, but grazing had wiped out the native grassland species. Now the Marl-Tiny-Matchedash Conservation Association (M-T-M), in co-operation with Ducks Unlimited, the North Simcoe Stewardship Network, and the Ministry of Natural Resources, has begun the process of restoring the bur oak savannah landscape. On the Cowan Trail north of the town of Coldwater and overlooking the vast marshes of the provincially significant wetlands of Matchedash Bay, the site was identified by the MNR as a significant and potentially restorable savannah in 1996.

Since no pristine Ontario examples remain of bur oak knolls on the edge of the Canadian Shield, it is not known exactly how this savannah type differs from sand savannahs with red and, further south, black oaks, nor how closely vegetation under these bur oaks resembles that of bur oaks savannah further west. Fortunately, the massive pre-settlement oaks remain, providing the cornerstone for any restoration.

The 'original' composition of the savannah was approximated with the help of Wasyl Bakowsky and Mary Gartshore. From this 'wish list', Scott Martin of Wild Canada provided plants, in nearly all cases from seed collected by him within Simcoe County. Ducks Unlimited was interested because they had planted an adjacent slough in their 5-grass prairie mix to enhance cover for nesting wildfowl.

On April 30th, 13.4 hectares were burned by MNR fire crews. The fire in the DU prairie grass slough was watched with great interest by the fire fraternity, as the fuel loads were right off the map. The closest match in Ontario is the high-quality tall grass prairie at Ojibway Prairie Nature Reserve, in Windsor, where fuel loads are two to three tons per hectare. At Matchedash DU site they were 26 tons per hectare! The fire was monitored closely and 30 meter high flame fronts were recorded. This very hot and fast fire swept up to the bur oak savannah and fizzled. Non-native cool-season grasses, *Bromus inermis*, *Agropyron repens*, and *Phleum pratense*, dominate the site at ground level and they just do not burn well. Already green and succulent by April 30th, and with the day's fire indices less than optimal, the non-native invaders were not killed by the fire.

The follow-up step to the prescribed burn was to lay out six 20 x 20 meter plots where plugs would be planted. To combat the dominance of the cool-season grasses in the plots, they were sprayed twice with Round-up, mowed once, and spot-burned two days before planting. The cool and rainy spring provided ideal growing conditions for the non-native grasses. By the planting date they were a dense sea of grass one meter tall surrounding the plots and already setting seed. Without thorough site preparation, the 6000 small plugs of native plants would have no chance of competing against the cool-season grasses.

The community planting date, July 11th, was a festive occasion, befitting the start of recovery for this savannah. Twenty-seven people, including volunteers from the Coldwater Conservation Club, M-T-M, and NANPS, planted over 4000 plugs of 25 different species on a hot but breezy day under the ancient spreading limbs of the giant oaks. The following day the Fire Centre in Parry Sound sent their pumper truck and lightly sprayed a total of 3,000 gallons of water on the plugs, in order to hold them until rain came on the weekend. For the first time in perhaps over one hundred years, Indian grass, little bluestem butterfly milkweed, and Virginia mountain mint are now growing at the site. Other woody species such as New Jersey tea are being prepared for planting next spring.

With repeated burns, one of the most threatened and beloved vegetation types in North America, the Bur Oak Savannah, may be restored. If this project proves successful, there are other shield outcrops in the general area, where, in the absence of fire, mixed forest has invaded and overtaken wide-spreading bur oaks.

Gary Allen is District Ecologist for Ministry of Natural Resources, Midhurst, Ontario. He can be reached at 705-725-7517.
(Species list on page 10.)

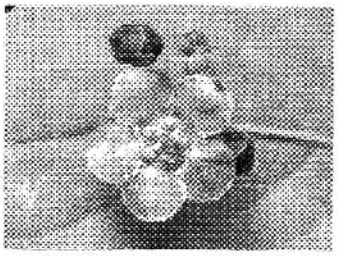
Native Plants to Know

A ground cover for shade with bright fruit in late summer

Trish Murphy

A dense patch of Euonymus obovata *in Shining Tree Woods (near Long Point, Ontario) takes advantage of April sunshine, before the canopy's leaves unfold.*

Euonymus obovata



Inconspicuous flowers are only 5 mm wide

Paul McGaw

YES THIS DOES PLANT DOES HAVE A common name, but it is so awkward and misleading that we won't tell you what it is. Maybe having a cute common name would help this plant get the recognition it deserves, for it is startling how few people know *Euonymus obovata*. In the meantime, grit your teeth, all you Latin-avoiders. The genus *Euonymus* includes those evergreen shrubs that are the staple of cookie-cutter foundation planting. If the average garden-centre goer can learn to say *Euonymus*, so can you. *Obovata* means upside-down egg-shaped, and refers to the shape of the leaves.

If you want an obliging and easy low plant for deep deciduous shade, you should try *Euonymus obovata*. It is a prostrate shrub that seldom gets more than a foot tall. It grows sideways, rooting where it touches the soil. Unlike the much-used Eurasian ground-cover called wintercreeper, this *Euonymus* is deciduous. But its stems are bright green and stay bright green through the winter, making it a subtle choice for winter colour in the lower Great Lakes region.

The showiest feature of *Euonymus obovata* is its brightly coloured fruit, which ripen in late summer, just when the shade garden could use some spots of colour. The bumpy outer capsules are vivid pink and the round seeds are shiny orange or scarlet. The fruit is relatively large for the height of the plant and, in years of adequate rainfall, it is produced abundantly. As with all other *Euonymus*, the fruit is not edible. For humans. Somebody must eat the fruit because in the woods they disappear during the course of the autumn.

Euonymus obovata often forms extensive patches in the woods but it seldom becomes so dense that it excludes other plants. It grows as part of the community of forest floor plants, which might include trilliums, toothworts, Virginia waterleaf, ferns, and other familiar woodland plants.

***Euonymus obovata* can be ordered from:**
Otter Valley Native Plants:
PO Box, Eden, ON N0J 1H0
otter.va@kanservu.ca
&
Wildtype Native Plants (pick-up only)
Bill Schnider
900 North Every Road
Mason, MI 48854
wildtype@msu.edu

Euonymus obovata is found in woods, ravines, and remnant woodlots; on clay soils and on sand. In Ontario it is common in woods almost everywhere below an imaginary line running from about Grand Bend to Toronto. North of that line it scarcely occurs. Thus it is a good marker plant for the Deciduous Zone. In the United States it grows from Indiana across southern Michigan into western New York. Its range extends south of the Great Lakes into Tennessee.

The common name is running strawberry bush euonymus.

Do you have a favourite native plant? One that deserves to be better known? Readers are invited to submit short articles or to make suggestions for future issues of **The Blazing Star.** *Suggested species should be available as seed-grown nursery stock at native plant nurseries and should not be too exacting in their cultural requirements.*

New at the Nurseries

Prairie Ragwort

by Charles Kinsley

In the spring of this year our nursery started offering for sale a native ragwort. We initially identified it as prairie ragwort (*Senecio plattensis*). Doing research for this article, however, I became aware that this genus is rife with unconfirmed hybrids, or at the very least, some confusion over acceptable characters. It now appears that our plant is in fact balsam ragwort (*S. pauperculus*) or a hybrid between *S. pauperculus* and *S. plattensis*. Prairie ragwort is more likely to be found in dry, sandy habitats with some shading--typical of dry oak savannahs, while balsam ragwort prefers moderately moist open alkaline soils. However, jack pine and oak savannahs can be found in proximity to moister alvars, so the opportunity for the two to hybridize does exist. One character in particular from our plants indicates *S. plattensis*, while others point to *S. pauperculus*.

Balsam ragwort tends to like warm habitats with alkaline soils and moderate moisture regimes. It blooms from late May throughout June in Zones 3-6. Generally, it shows a biennial growth pattern. However, it sends out rhizomes, so it may be that each shoot from a rhizome displays a biennial pattern (rosette one year, flowering shoot the next) while the plant as a whole in a true perennial. Each flowering shoot is 20 to 40 cm tall, topped with an corymbose inflorescence of three to twelve flowers. Each flower has a convex disc, much like a Helenium, coloured a deep yellow. The rays (petals) number 12-16, are a deep lemon yellow, and are reflexed like coneflowers. The flower is about 1.5 cm across. The plant has a delicate appearance, accented by the deeply lacerated leaves which grow up the stem. The leaves of the basal rosette are thick, glossy, spatulate, with toothed edges. The rosette is small and low, only 10-16 cm across. As a result of its growth habit, care must be taken when planting to ensure there is little competition. Site each plant to ensure it receives maximum sun each day. Balsam ragwort could be grown in clay soils in beds with other low plants, in rock gardens with limestone, or in gravel beds made with small limestone pea gravel.

Prairie ragwort is a stouter and taller plant, sometimes reaching 65 cm tall. The stem is correspondingly thicker and is usually, though not always, densely covered in fine white hairs. The flowers are proportionately larger, with less reflexed rays, giving the plant a look similar to an aster or daisy.

When growing prairie ragwort, less care is required to fend off competition. Most oak savannahs have low shrubs and grasses. Such a regime indicates the light levels reaching the basal leaves of prairie ragwort would be in the order of 40%-70%. In any case, when growing any plant, take care to watch its progress and move it at the first suitable opportunity if it appears to be languishing. I would recommend planting prairie ragwort in beds with prairie grasses in light shade in dry soil or even in more open, raised areas where lack of moisture limits other plant choices.

One European species of ragwort, tansy ragwort (*Senecio jacobaea*) is considered a noxious weed, especially in horse pasture. It is on official noxious weed lists from Australia to Colorado to Europe--largely because of its toxicity in rangeland. Many ragworts concentrate in their lower leaves elements that are not used as nutrients by the plant. This may be the reason various ragworts are used as larval food plants for certain butterfly species. Eventually this trait may prove useful as a bio-accumulator of soil-based metals.

Charles Kinsley is a proprietor of The Ontario Native Plant Company in Downsview, Ontario.

Books

The New England Wildflower Society Guide to Growing and Propagating Wildflowers of the United States and Canada by William Cullina
Houghton Mifflin, 322 pp, $60 Cdn
Reviewed by Catherine Crockett

I am always delighted to find another book about wildflower propagation, and impatient to see if it offers solutions to any difficulties I have been having. When I spotted this one at my local bookstore, I immediately looked up my seed-starting *bête noire*—blue cohosh (*Caulophyllum thalictroides*). Cullina reports that blue cohosh is slow but easy from seed if it is planted fresh, outdoors. I'll certainly try that.

I am happy with the book as a technical guide: it is clearly written, the photography and reproduction are excellent, the book design (by Anne Chalmers) is elegant and rational. There is a single, well compiled index.

The introductory material, including a map of the floristic provinces of North America which shows all of Quebec, PEI, and Nova Scotia as **Taiga**, seems to have been tacked on in an effort to be comprehensive. This is common with gardening books, and while a waste of paper, certainly no reason to avoid the book.

The heart of the book is an alphabetical listing of genera and species. Each genus is given a general introduction, then the entries for the species present the basic facts that anyone, standing plant in hand at a nursery, wants to know: hardiness zones, sun, soil, description. There are lots of lovely photographs.

After the 'Encyclopedia of Plants', there is a section discussing propagation by seed and, more briefly, by cuttings. Individual listings are full of detailed advice such as 'older, eyeless sections of the rhizome should also be replanted' (for *Anemone canadensis*). Not intuitively obvious. I learned a lot from this part of the book.

Lists of plants suitable for various sites, a glossary, bibliography, and lists of suppliers and native plant societies conclude the book.

I would recommend this book to anyone looking for a detailed reference on propagation and cultivation of temperate North American flowering plants.

Gardening magazines are forever touting the merits of some weird new mutant or hybrid. Native plant nurseries don't claim to invent new plants but from time to time they introduce something that has not been commercially available before. Native plant nurseries are invited to submit to **The Blazing Star** *short articles on notable new offerings.*

Members' Questions

Planting for toads

Grassroots Albany, *a community organization which has been promoting the use of native plants in gardens in the Annex area of central Toronto, this spring branched out into a different form of native species distribution. Toad eggs from a garden pond in Rexdale, on the West Humber River, were carefully moved to some garden pools in the Albany Avenue neighbourhood. The community wanted to re-introduce the most urban-tolerant amphibian to a mature downtown neighbourhood, which could now probably support a toad population, but which has become isolated from any sources of young toads.*

Many ***Grassroots Albany*** *participants were asking: "What can I plant to create habitat for toads?"*

Planting to attract certain herbivores with specific food plants can be straightforward: plant pussytoes or pearly everlasting to attract American lady butterflies, plant various milkweeds to attract monarchs. Providing for carnivorous creatures such as amphibians, fireflies, and dragonflies, is less direct. Generally, aim to plant as many native plants as possible, grouping them into communities that reflect the habitat of the creature.

American toads (*Bufo americanus*) are found in many habitats: hedgerows and woodland edges, meadows and savannah. They adapted readily to well-grown gardens in the pre-chemical, pre-power tool age.

Amphibians have two distinct life phases. A neighbourhood must have some suitable aquatic habitat for breeding and raising tadpoles if it is to sustain a population of adults. Adult toads are terrestial, preferring dry land. They need open water only during breeding season.

Toads are the easiest amphibians to accommodate as tadpoles. They mature quickly, taking a mere six weeks from egg-laying to metamorphosis. Tadpoles eat mostly algae but also some very small animals.

A toad-friendly pond is one generously planted with native pond plants and wetland plants. The exact species mix is not important. It is more important to have a pond that is old enough to have acquired a community of algae and plankton, i.e. not brand-new and relatively sterile. Ponds planted up in the fall will be ready for the next spring breeding season.

Some attractive pond plant possibilities are:

soft rush ***Juncus effusus***
narrow-leaved cattail ***Typha angustifolia***
water-willow ***Decodon verticillatus***
blue flag iris ***Iris versicolor***
pickerelweed ***Pontederia cordata***
marsh marigold ***Caltha palustris***

Toad-friendly ponds also have sloping sides for at least part of their perimeter, not straight up-and down nor overhung with coping stones. The little toads must be able to leave the pond when they are ready. They are agile but they cannot cope with smooth vertical walls nor with overhang. If your existing pool is a prefab with vertical sides, provide ramps or banked up planting areas so that the toads may enter and leave.

Adult toads eat slugs, beetles, and other terrestial insects. They like logs, brush piles, and slabs of bark, for shelter, and because decay fungi attract fungus-eating insects. If you have a pesticide-free garden that has leaf litter and a good diversity of native plants to attract a range of pollinators and predators, you probably have a suitable home for a toad.

For more information, contact the Adopt-a-Pond programme, Bob Johnson at Metro Toronto Zoo at 416-392-5900.
Answer by Trish Murphy with assistance from Ross MacCulloch, herpetologist at ROM.

*A successful pool for toads and other amphibians, built with a butyl pond liner, and planted with cattails (*Typha*), arrowhead (*Sagittaria*), and other native water plants.*

Members' Questions

I have noticed that a lot of native shrubs are, well, shrubbier than most nursery trade shrubs. Natives are often described as "suckering" or "tendency to colonize" or "coarse." I'm sure there must be ways to make native shrubs attractive within the space constraints of the home landscape. What are some of the ways to make the most of native shrubs? Stacy Shannon, East York, Ontario

Native shrubs in urban gardens

Answer by Trish Murphy with Tom Atkinson.

Certainly the willows and red-osier dogwood and some other well-known shrubs are thicket forming.This may be a response to deer browsing, and fire, and perhaps ice scour during spring break-up, for those shrubs that grow by rivers. If they didn't sucker from the roots they would soon be gone. Some of the most restrained shrubs for eastern North America come from old undisturbed hills, such as the fothergillas of the Great Smokies.

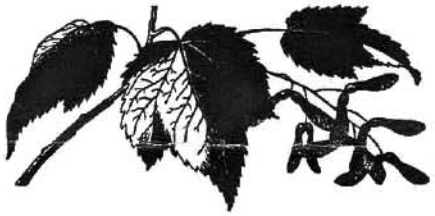
Not all native shrubs of the Great Lakes region form thickets. Some are very prim indeed. Think of shrubby cinquefoil *(Potentilla fruticosa)*, Kalm's St.-John's-wort (*Hypericum kalmianum*), and New Jersey tea *(Ceanothus americanus)*. Some shrubs which form extensive thickets in wild situations may have experienced repeated episodes of fire or deer. They may just be very old: Canada yew (*Taxus canadensis*) often forms extensive colonies but that should never discourage you from growing it in the home landscape. Canada yew is slow and those colonies may have been many centuries in the making.

Shrubs which are rapid colonizers on light sandy or peaty soils may be restrained by heavy soils. For example, if you are gardening on the great clayey till plain of northern Toronto and region, you might find that black chokeberry (*Aronia melanocarpa*), a colonizer on light soils, does not sucker in the garden. On the other hand, on rich soils, it may become taller than you expected from seeing it in the wild, growing on thin soils and in competition with other plants. Sweet fern (*Comptonia peregrina*), not a fern at all but a shrub in the bayberry family, forms large patches in poor sandy soils. On heavy soil, it may not spread at all. Sweet fern never gets very tall, always staying knee to mid-thigh high, so, where it is at home, you might want to take advantage, and turn it into a fragrant mass of relatively tall ground-cover.

The suckerers you should be leery of are those that spread underground and come out a good ways from the parent plant. Blackberries are the prime example, but some of the native roses can be almost as aggressive. Roses can contained by growing them in large open-bottomed pots sunk in the ground. Even in these circumstances, it is prudent to choose a smaller species, *Rosa carolina*, say, rather than *Rosa setigera*. Of course, there are many situations where you appreciate the tendency of shrubs to fill in an area and form a ground-cover. See the article on *Euonymus obovata* for a really low-growing example.

Large shrubs can often be pruned into small courtyard trees by restricting them to one or a few stems and pruning away the lower branches. Alternative-leaved dogwood (*Cornus alterifolia*), for example, is naturally a small tree and makes an elegant specimen if restricted to one or two stems. Many of the larger viburnums can be treated this way as can bladdernut (*Staphylea trifolia*) and blue beech (*Carpinus caroliniana*) with their subtle bark interest.

Several of the shade-tolerant "shrubs" of the forest understorey tend to a single stem and could really be considered miniature trees, a most desirable garden commodity. The early-blooming leatherwood (*Dirca palustris*) is like this. Our beautiful mountain maple (*Acer spicata*) with vivid fall foliage colour, could be used in garden situations where one commonly sees the larger varieties of Japanese maples.



A note from the Editor:
I have enjoyed editing these past two issue of the NANPS newsletter. The next few issues will be edited by well-known native plants author Lorraine Johnson. My thanks are due to all the contributors and helpers and proof-readers, and especially to Douglas Counter for scanning images for the newsletter. Trish.

Directory of Sources & Services

Pterophylla

Producers os southern Ontario ecotypes of native seeds, plants, and trees. Mail order or by appointment. Free catalogue. Mary Gartshore, Peter Carson, 316 Regional Road 60, RR #1 Walsingham, Ontario N0E 1X0. 519-586-3985, fax: 519-586-2926, email: gartcar@kwic.com

Taddle Creek Nursery

Southern Ontario native perennials, sedges, ferns, and vines -- all nursery propagated or rescued. Contract growing or seed collecting can be arranged. Gardening services available. Catherine Crockett (416) 516-3571, crockett@eol.ca. Open by appointment.

Acorus Resoration

Over 200 species of native plants and seed for wetland, meadow, praire and woodland. Ecological Consultation - Planting, Design & Installation. Paul Morris, Darleen Degrieck. RR# 1, Walsingham, ON, N0E 1X0 (519) 586-2603 Fax 586-2447 E-mail: acorus@kwic.com Web:www.kwic.com/~acorus

The Ontario Native Plant Company

60 Carl Hall Road, building 39, Downsview, ON M3K 2C1 tel: 416-633-1797 fax 416-633-6326, e-mail: onp@nativeplants.on.ca web site: nativeplants.on.ca. Open to the public April 1 to Oct 15 Mon. to Sat. 10 am to 5 pm. Other times by appointment only.

Native plants are native to a specific place —buy within your bioregion

Calendar of Events

Celebrating Your Native Landscape: Bringing It All Home. Saturday, August 12, 2000, at University of Michigan, Ann Arbor. Co-sponsored by the Nichols Arboretum and Michigan Chapters of Wild Ones Natural Landscapers. A variety of indoor and outdoor sessions, including: **Native Grasses and Sedges - Unsung Heroes of a Natural Landscape**, with Tony Reznieck, **Improving Water Quality: the Role of Native Landscapes in your Watershed**, and **Identifying and Managing Invasive Exotic Plants**. Contact Maryann Whitman @ 248-601-2553 or e-mail: wildones-conference@ic.net.

NANPS Summer Wildflower Garden Tour, Saturday August 26, 10 am to 4 pm. Private native plant gardens in Toronto. For more details, please see panel on page 3.

Canada Blooms
March 14 - 18, 2001, Metro Toronto Convention Centre. Plan to visit the NANPS information booth and display garden.

Woods Talk
Federation of Ontario Naturalists AGM and Conference, June 14 -17, 2001, York University, Toronto. 416-444-8419, 1-800-440-2366. Theme: Conserving Ontario's woodlands.

Species planted at the July 11th community planting at Matchedash Bay savannah site:
Big bluestem *Andropogon gerardii*
Prairie brome *Bromus kalmii*
Canada wild rye *Elymus canadensis*
Switch grass *Panicum virgatum*
Little bluestem *Schizachyrium scoparium*
Indian grass *Sorgastrum nutans*
Sand dropseed *Sporobolus cryptandrus*
Long-headed thimbleweed *Anemone cylindrica*
Swamp milkweed *Asclepias incarnata*
Butterfly milkweed *Asclepias tuberosa*
Skyblue aster *Aster oolentangiensis (A. azureus)*
Arrow-leaved aster *Aster urophyllus*
Showy tick-trefoil *Desmodium canadense*
Woodland sunflower *Helianthus divaricatus*
Round-headed bush clover *Lespedeza capitata*
Wild bergamot *Monarda fistulosa*
Virginia mountain mint *Pycnanthemum virginianum*
Black-eyed Susan *Rudbeckia hirta*
Early goldenrod *Solidago juncea*
Gray goldenrod *Solidago nemoralis*

Nova Scotia Wild Flora Society
Meetings: 7:30 pm 4th Monday, September to November, and January to April, at the N.S. Museum, Summer St. Halifax. Outdoor meetings, May & June.
Mailing address: c/o N.S. Museum of Natural History, 1747 Summer St. Halifax, B3H 3A6.
E-mail: barry.sawyer@ns.sympatico.ca

Toronto Wildflower Society
Meetings, 4th Wednesday of the month, September through April. Beaches Community Centre, 6 Williamson Road, Daycare Room (basement). Summer wildflower walks and tours. Contact: Paul McGaw, 416-261-6272.

The Dogtooth/Waterloo-Wellington Wildflower Society meets on the third Wednesday of the month, 7:30 pm at the University of Guelph Arboretum Centre. For more information, contact Carole Ann Lacroix, Herbarium, Botany Department, University of Guelph, Guelph, Ontario N1G 2W1, 519-824-4120, fax: 519-767-1991. e-mail: botcal@uoguelph.ca or web site: http//www.uoguelph.ca/botany/herbaria.htm.

The Native Plant Society of Northeastern Ohio. Monthly field trips in summer and fall. Contact: Thomas Sampliner, 2651 Kerwick Rd., University Heights, OH 44118, tel. 216-371-4454. Web site: http://community.cleveland.com/cc/nativeplants

- Sunday, August 6, 9 am - Ferns of Cuyahoga County field trip
- Sunday October 22, 9-12 am. Urban Flora of Cleveland, led by George Wilder
- Saturday, October 28, 5:30 pm - AGM, speaker Ted Scott of the Virginia Native Plant Society

The Evergreen Foundation, with the North Toronto Green Community and the Toronto Field Naturalists, have organized several nature walks and community wildflower plantings in various locales within Toronto. For more information, contact Anne Marie Lewis at 416-596-1495, e-mail: infor@evergreen.ca.

- Sunday August 6 - Castle Frank Creek natural history hike. Meet at Sherbourne Station.
- Sunday August 20 - Naturalization sites in Mud Creek and Walmsley Brook watersheds. Meet at Yonge and Albertus, 6 blocks north of Eglington.

www.nanps.org

We're finally on-line (almost). With the approach of the twenty-first century, NANPS is attempting to modernize our approach to conservation. Now not only can you reach us through snail-mail, you can e-mail us at **nativeplantsoc.@yahoo.ca**, leave a message on our voice mail at 416-680-6280 or, starting in September 2000, visit our new web site.

While we're still trying to eliminate a few bugs (only non-native species, or so I'm told), we hope you will enjoy the opportunity of interacting more directly with the Society. Among the features of our site, you will be able to access a **Photo Gallery**, an **Events Calendar**, and a **Plant Rescues** area.

Many thanks to Jack Sanders who publicized NANPS items on his web page **www.acorn-online.com/hedge** in the past. Take a bow, Jack, and have a well-deserved break.

Regional Representaion
The North American Native Plant Society began as the Canadian Wildflower Society, based in Toronto, Ontario. Not surprisingly, the primary interests of many of the Society's directors have been concentrated in the lower Great Lakes bioregion. We urgently need active members outside this area to act as **Regional Representatives** -- serving as local contacts for members, reporting on items of local and regional significance, and identifying issues that would benefit from NANPS' involvement. If you are interested in serving as a Regional Rep.-- the time commitment can be as great or small as you wish -- please contact Deborah Dale via **nativeplantsoc@yahoo.ca** for further details.

Do you want to start a local wildflower or native plant society in your area? Let us post a notice for others to join you. We would be delighted to put notices in our newsletter or on our web site. Nature walks, seed-starting workshops, and local restoration projects in parks and school yards are just some of the activities taken on by local societies.

Draw Winner

Barry Severn of Thornhill, Ontario, won the NANPS Canada Blooms membership draw. He received a potted White Bear Sedge (*Carex albursina*), a CWS sweatshirt, a pair of tickets to the Toronto Wildflower Society spring garden tour, and a gift certificate for the NANPS spring plant sale. Barry used the gift certificate to stock up on wildflowers - we hope his new plants are thriving.

Name the Newsletter

The winning newsletter name, **The Blazing Star**, was submitted by Larry Cornelis of Port Lambton, Ontario. We have mailed an autographed copy of Lorraine Johnson's book ***100 Easy-to-Grow Native Plants*** to Larry. Congratulations, Larry!

We received so many good names (27 entries in all) that the Board had a very hard time deciding. Thanks to all the contest participants. Close runners-up were sent a $10 gift certificate for next year's sale: M.A. Flower of Kingston for ***Flora,*** R.A.K. Richards of Markham for ***The Seedling,*** and Donna Pickel of Toronto for ***Newsvine.***

Any North American Native Plant Society member who is interested in serving in the capacity of Director should contact the Board Secretary to make her aware of their interest. The Board of Directors meets once a month from September through June. The meetings are held on Saturday mornings at the North York Civic Centre.

If you are not interested in being a Director, you might still like to help by joining or chairing a committee. Some of the current committees are:

Education Plant sale
Newsletter Web site
Canada Blooms 2001 display
Plant rescues

Please contact the Board Secretary:
by e-mail: ljohnson@interlog.com
by phone: 416-680-6280

NANPS Gift Membership

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Annual Membership
In Canada: CAN$10.00
Outside Canada: US$10.00
Please make cheque or money order to:
North American Native Plant Society
PO Box 84, Station D
Etobicoke, ON M9A 4X1:

All members are welcome to attend the next....

NANPS
Annual General Meeting
Saturday, October 14th, 2000

Montgomery's Inn
4709 Dundas Street West
Toronto

8:30 - 9:15 Early-bird walk: Montgomery's Meadow and Mimico Creek valley alien invasives
Meet in parking lot at Montgomery's Inn.
9:30 - 11:00 am AGM - Briarly Room
Conservation Awards
Coffee and Refreshments
11:00 Plant Sale: members' donations (picnic tables by parking lot - weather permitting)
11:30 Nature Walk: Lambton oak savannah remnant
Lunch at Old Mill Restaurant

If you are interested in joining other NANPS members for lunch at the Old Mill Restaurant, please let us know by voice-mail (416-680-6280) or e-mail (nativeplantsoc@yahoo.ca) by September 15th, 2000.

Tours of Montgomery's Inn, an authentically restored inn and farmhouse built in 1847, are available Saturdays from 1 pm to 5 pm: $3.00, students/seniors $2.00. Partially wheelchair accessible. Web site: montgomerysinn.com

Montgomery's Inn is on the south-east corner of Dundas Street West and Islington Avenue in Toronto. It is accessible by transit from Islington subway station, via a short walk through Central Park and the footbridge over Mimico Creek. Or walk straight up the east side of Islington Avenue and turn right at Dundas Street. Or take any #37 Islington bus two stops north of the station.
Parking is available on the east side of the Inn, via Montgomery Road.

This is your final notice of the NANPS AGM. To reduce mailing costs, there will not be another separate mailing. If we have an up-to-date e-mail address for you, we will try to remind you by e-mail closer to the date. If you cannot attend but would like to send a proxy, please contact the Society's Secretary at ljohnson@interlog.com

North American Native Plant Society
PO Box 84, Station D
Etobicoke, ON M9A 4X1