The Blazing Star

Fall 2002, Volume 3, Issue 4

Newsletter of the North American Native Plant Society

Native Plant to Know

Sweetspire

Itea Virginica

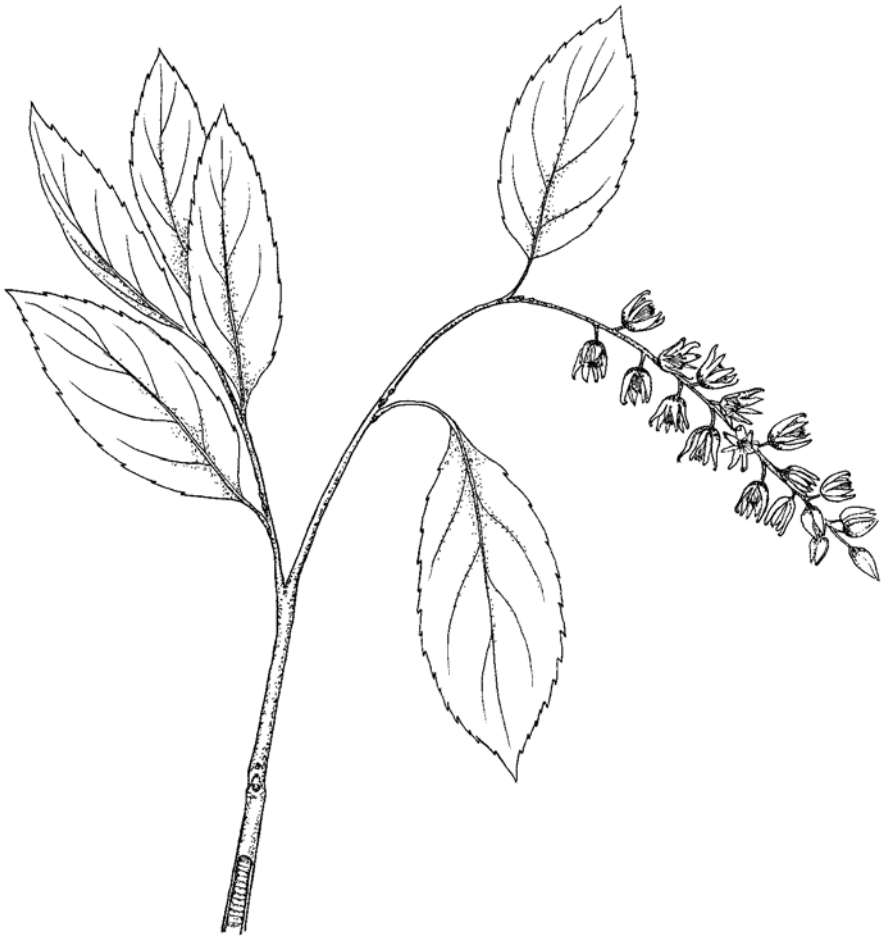
Sweet Pleasures

by Catherine Siddall

When I hear myself sounding like a used car salesman, I know I have gone too far. In my defence, I am spouting the virtues of a wonderful, useful, hardy – there I go again! – shrub, not some polluting consumer item. *Itea virginica*, is a North American native, and I have convinced many people to buy it simply by showing them a photograph featuring a grove with gracefully arching reddish stems (about three to four feet tall) covered with rich, burgundy-coloured leaves in full autumn splendour. The other trees and shrubs in the photo are all bare. That this shrub holds its fall-coloured leaves very late is confirmed by my experience of it in my yard.

Itea virginica has lovely, lightly scented white flowers appearing at the end of each branch on drooping racemes in June, giving this plant its common name Sweetspire. It thrives in semi-shade under deciduous trees, and I am even testing it in very shady conditions where I don't expect the fall colour to be quite as spectacular. When you purchase a pot-grown plant you will see that it is inclined to sucker. I have seen plants so eager to escape the confines of their pots that they have sent out suckers from the holes at the base of the pots. In such cases, I cut the plastic pot away

Continued on page 12



Itea virginica

Illustration by Brigitte Granton

***The Blazing Star* is...**

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From the Editor

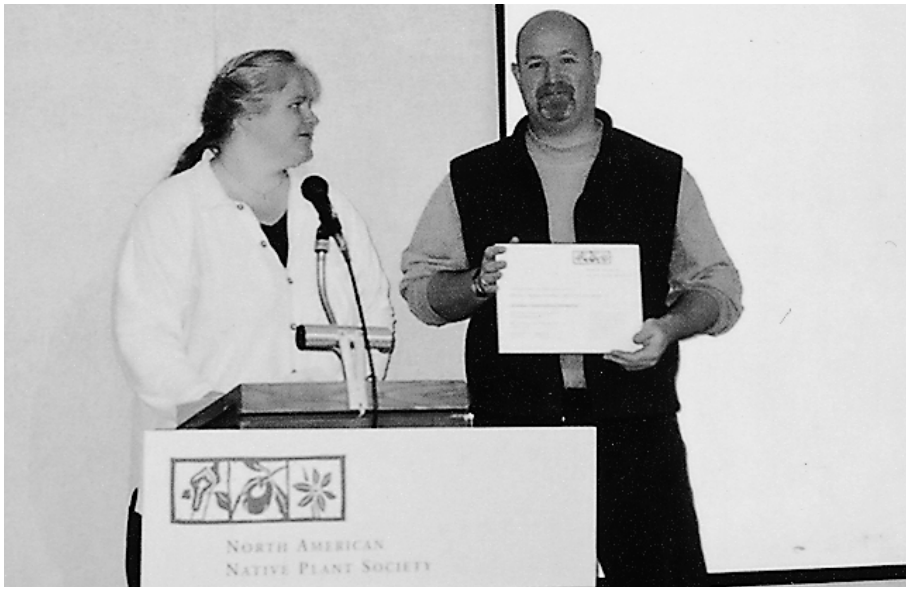
This issue of *The Blazing Star* will be my last as editor; I'm very pleased to announce that Irene Fedun will be taking up the reins with the next issue. I'd like to thank all the very generous writers, illustrators and photographers who have contributed their time and energy, as volunteers, to the newsletter; it has been a great pleasure to work with this talented group of people. A thousand thanks to the newsletter designer, Linda Gustafson, for her wisdom, patience and flare. I look forward to being an occasional contributor to the newsletter under Irene's leadership – and I look forward to spending more time in my garden!

Lorraine Johnson

The Paul McGaw Memorial Conservation Award

Every year, NANPS presents the Paul McGaw Memorial Conservation Award to a person or group, nominated by our members, in recognition of an extraordinary contribution to the conservation, protection or restoration of the natural heritage or native flora of North America. At the NANPS AGM in November, the 2002 award was given to the Cascades Conservation Partnership in Washington State. This partnership of concerns citizens joined with the Sierra Club, Wilderness Society, NW Ecosystem Alliance, the Seattle Audubon Society, Pacific Crest Biodiversity Project, the Alpine Lakes Protection Society, and the Washington Trails Association to protect land in the Cascades Mountains area from logging. Their goal is to purchase 75,000 acres of timberland, owned by private logging companies, which contain 15,000 acres of old-growth forest, 15 lakes, 26 miles of river, 12 important wild salmon spawning streams, 22,000 acres of roadless wilderness and 45 miles of popular hiking trails. The acquired lands will become part of the U.S. National Forest system and will be protected under various administrative designations that will ensure the old-growth forest will not be logged. Already degraded lands will be managed to restore habitat for the future. To date, the Cascades Conservation Partnership has raised more than $50 million and protected more than 19,700 acres.

Many thanks to Jen Watkins, one of our Washington State members, for bringing this worthy project to our attention, and congratulations to the Cascades Conservation Partnership. If you'd like more information on the project, see www.cascadespartners.org.



Douglas Counter accepting the Paul McGaw Memorial Conservation Award from NANPS President Deborah Dale on behalf of the Cascades Conservation Partnership

The Sagebrush Steppes of Eastern Washington State

by Dixie Dringman

I stop and listen. To my left I hear that familiar warning: a rattlesnake out for a tan and nap has been disturbed by my footsteps on the basalt rocks. He (or possibly she) moves silently into a space between the rocks. I go on, not frightened, but thrilled that I was privileged to glimpse one of the many dwellers of the expansive basalt breaks.

The basalts were formed millions of years ago as the North American continent passed over a "hot spot" in the earth's mantle. Before the lava came, eastern Washington state was a tropical area, with palms, ferns and various temperate trees growing here. These things are now covered in hundreds of feet of basalt – one of the largest lava flows in the world. Once in a while I will find a piece of petrified wood that has eroded out of its rocky tomb, a reminder of what was.

Once the dinosaurs were gone, mountain sheep, elk, deer, bear and coyotes took their place. But all would not remain quiet, as Mother Nature was not yet done with Washington.

Fifteen thousand years ago the Ice Age floods came. These were caused by a great dam of ice that formed repeatedly at the Clark Fork River in Montana. More than forty times this dam broke and then reformed, each time immersing eastern Washington in a wall of water two thousand feet high and traveling at 35 to 40 miles per hour. Only the highest elevations escaped this deluge. Lower areas were washed bare of soil and vegetation. Any living thing that could not outrun the water drowned.

Where I am now standing, the water would have been hundreds of feet over my head. There would have been no escape for my rattle-clad friend or me. I have a visual reminder of what forces were at work: across the Columbia River and from where I stand I see an immense sandbar covered with ripple marks 10 feet high and 30 feet apart. All made by the raging waters.

After the basalt flows and great Bretz floods, a new flora began to evolve, one adapted to this harsh environment of eroded reddish basalt rock littering the landscape. Eastern Washington is now a semi-desert, with sagebrush, buckwheat, balsam and cactus.

The rains begin in late October. In December and January, there is snow and then rain again from February to April. The average annual precipitation is eight inches or less, so every drop or flake of precipitation is precious.

PHOTOGRAPHS COURTESY DIXIE DRINGMAN

Dagger-pod (*Phoenicaulis cheiranthoides*)

Winter is an interesting time, yet no one would ever know that there are hundreds of wildflowers living here. The only plants visible are the tall and stiff sage (*Artemisia tridentata* and *A. rigida*), purple sage (*Salvia dorrii*), rabbit brush (*Chrysothamnus*), eriogonums and bunchgrasses. All of these are grey and "dead" in the overcast and dull days of winter. Even so, the landscape is green and lush, with mosses and lichens covering the rocks and ground, and looking oddly bright and out of place.

In February and March, shooting stars (*Dodecatheon*), yellow bells (*Fritillaria*) and sagebrush buttercups (*Ranunculus glaberrimus*) appear. They are often found flowering in the crusted snow. April is the month of lupine, balsamroot and larkspur.

May brings the magenta flowers of *Pediocactus nigrispinus*. Alliums (*A. acuminatum* and *A. robinsoni*) and bitterroot (*Lewisia rediviva*) cover acres in pink and lavender flowers. Gilia, phlox, yarrow, locoweeds, penstemons, eriogonums, death camas and Indian paintbrush also add their beauty to the rocky landscape.

By July, there has been no rain since April, temperatures have reached at least 100°F and heat waves shimmer off the dark red basalt. All of the wildflowers have gone underground to wait out the heat and drought.

The plants of this unique and sometimes severe habitat have learned to adapt and survive by sharing the meager resources of soil and water, to take turns in their cycle of life so that they and others can continue to live. They have learned that versatility and tolerance are not a way of life but necessary for life.

I hope that possibly one day we too can live by these important rules of survival. Until then, I can only hope to be able to continue to share with these plants the beauty and freedom of the land they call home.

I would highly recommend that anyone wanting to know more about the Sagebrush Steppe and Great Basin history, flora and fauna should read *The Deserts Past* by Donald K. Grayson and *Sagebrush Country* by Ronald J. Taylor.

Hooker's balsamroot (*Balsamorhiza hookeri*)

Dixie Dringman lives in central Washington state and grows hardy cactus on 30 acres of sagebrush steppe. She spends her free time hiking and promoting the preservation of the sagebrush country, especially the native cactuses of the area.

Members' Questions

"I'm hoping that someone can set me on a course of anti-purple loosestrife (*Lythrum salicaria*) action. Purple loosestrife is taking over my wetland. Should I plant trees that will stand in water and eventually shade out the loosestrife? Should I cut, dig or pull? I will not consider using a chemical solution because then all the struggling native plants in the marshy area, as well as thousands of tadpoles, would die along with the purple loosestrife. However, even if I manage to control the Lythrum problem on my side of the county road, there's a thriving stand of the stuff on the other side. Seedlings have begun an inexorable march up our newly made entrance road; I'm pulling them as they appear. Please help! I'd like this wetland to thrive as it used to."

—Janet Scott, Fenelon Falls, Ontario

PHOTOGRAPH COURTESY JANET SCOTT

Purple loosestrife invading Janet Scott's wetland in Fenelon Falls, Ontario

We asked Laura Stephenson of Toronto and Region Conservation, to respond:

Lythrum salicaria, more commonly known as purple loosestrife, was introduced to Canada in the 1800s and has since spread to all provinces. By the mid-1980s, purple loosestrife was recognized as an emerging problem in Southern Ontario. At that time stories began circulating about entire wetlands being turned into a sea of purple. As an employee of the Ministry of Natural Resources in 1988, I remember being briefed about the problem and instructed to seek and destroy. Unfortunately, my first overzealous attempts resulted in the destruction of a couple of poor unsuspecting blue vervain. Today, however, like most people in Ontario I have become all too familiar with purple loosestrife.

With jurisdiction over 961 km^2 of water-based lands, my colleagues and I at Toronto and Region Conservation have struggled with this dilemma for some time now. From our local experience in Toronto, purple loosestrife knows no boundaries. It has been observed growing in shady swamps, sunny roadside ditches, on beaches, riversides and even in fairly dry inland sites. So, unfortunately, I don't think planting trees in an effort to shade out the purple loosestrife will solve the problem.

We, too, have found that this plant readily colonizes disturbed areas. In the early 1990s several of our newly constructed wetlands were completely overrun by purple loosestrife within the first growing season. It was around this time that we began to develop our purple loosestrife management strategy. In the development of this strategy we first assembled a list of everything we knew about the plant. This list is best summarized as follows:

- Thrives, but is not limited to, moist and sunny habitats;
- Blooms from June through September, producing over 2 million seeds annually;
- New plants sprout from seeds, broken stems and root segments in both soil and water;
- Mature plants are woody with dense, fibrous roots;
- Seeds remain viable for many years;
- Improper methods of removal and/or disposal can cause further spread; and
- Colonization often follows a disturbance such as construction.

Our management strategy evolved over the years, and at first we relied on three techniques: digging; hand pulling; and flower removal. (We felt a chemical solution was not a viable option.) Hand pulling was identified as being useful to eliminate young plants, whereas a garden fork was found to effectively remove older plants without leaving behind too much of the roots. (Not only is it harder to pass a spade or shovel through the tough roots, it also triggers regrowth from the root cuttings left behind.) Flower head removal we found was best accomplished using a pair of heavy scissors or pruners.

These various management techniques were applied, depending on the size and density of each purple loosestrife colony. In areas larger than 2 ha with relatively high densities, flower head removal was targeted to simply prevent further spread of the plant. In areas less than 2 ha with 25% to 50% purple loosestrife cover, staff and volunteers dug or hand pulled as many plants as possible and removed flower heads from the remaining plants. And, finally, in areas with isolated plants or colonies less than two years old, all plants were removed through hand pulling or digging. In all cases, the purple loosestrife plants or fragments were bagged and disposed of at the landfill to prevent further spread. Also, we restricted our activities to June and early July when the plants could be easily identified and so the threat of spreading seed was reduced.

By the late 1990s purple loosestrife had become widespread throughout our jurisdiction and it seemed we were fighting a losing battle. It was at that time that we learned that after many years of study, biologists had identified five insects that could be used to reduce purple loosestrife to acceptable levels. Results of these studies determined that these insects feed on purple loosestrife, prompting approval from both Canadian and American governments. The most effective of these biological control agents were reported to be two leaf-eating beetles called *Galerucella pusilla*

and *Galerucella calmariensis*. Intrigued by this news, Toronto and Region Conservation decided to pursue this new option.

In 1998, staff contacted the University of Guelph. The University had been researching the effect of *Galerucella pusilla* and *Galerucella calmariensis* on purple loosestrife at their own site since 1993. This project involved the release of 500-mated pairs of each of the beetle species at two separate locations within a cattail wetland colonized by purple loosestrife. Visiting the site we could only find a few, very poorly developed purple loosestrife plants in the entire wetland. It was also evident that the beetles had begun to disperse into new stands of purple loosestrife, radiating away from their original release site along a series of drainage ditches nearby.

Faced with such an enormous challenge, our original management strategy had been limited to preventing further spread by reducing seed production and eliminating new colonies. We felt we finally had a solution to deal with the more expansive colonies of purple loosestrife within our jurisdiction. With the assistance of the University of Guelph, Toronto and Region Conservation established nine purple loosestrife biocontrol sites. In a few years the beetles had a tremendously positive influence on the health of the wetlands at these sites. We have also been encouraged to find that monitoring has not turned up any incidences of these beetles reproducing or feeding on any plants other than purple loosestrife.

Our management strategy continues to rely on manual removal of the plant at smaller and isolated sites; however, the beetle populations grow each year and are decimating purple loosestrife colonies for tens of kilometres from their original release points. Recent population trends indicate that the beetles will be fairly well established in Southern Ontario within the next ten to twenty years.

Without knowing the size of your wetland and the severity of the infestation, I would suggest you too could apply the same principles that have been developed by our own management strategy. It is admittedly a daunting task, so first target minimizing the spread of the colony. Continue to remove new plants as you have been doing and couple this action with flower head removal.

For more information, please contact Laura Stephenson, Acting Coastal Ecology Coordinator, Toronto and Region Conservation, 5 Shoreham Drive, Downsview, Ontario M3N 1S4; phone (416) 661-6600 ext. 5296; fax (416) 661-6898; e-mail: lstephenson@trca.on.ca; www.trca.on.ca.

Calendar of Events

The NANPS on-line Message Board (www.nanps.org) lists events. Please e-mail (nanps@nanps.org) information about any native plant events you're involved with; we'd be happy to include your listing on the Message Board.

December 2002–March 2003
GREEN LEGACY
Montreal Botanical Garden, Montreal, PQ
An exhibition showcasing the beauty, diversity and vulnerability of Canada's native plants.

January 15–17, 2003
ECOSYSTEM RESTORATION AND STEWARDSHIP IN FLORIDA
St. Augustine, Florida
Plenary sessions will include keynote presentations on the science of restoration and conservation and restoration-related business opportunities. For more info, see www.ces.fau.edu.

January 24–26, 2003
22ND ANNUAL ORGANIC CONFERENCE
Guelph, Ontario
For more info, see www.guelphorganicconf.org or phone (705) 444-0923.

February 13, 2003
GARDENING FROM A NATURAL PERSPECTIVE
Guelph, Ontario
Join horticulturist Henry Kock for a practical workshop on developing and maintaining a garden based on natural principles. For more info, phone (519) 824-4120, ext. 2358.

February 13, 2003
ENVIRONMENTAL IMPACT STATEMENT CONFERENCE
Cambridge, Ontario
Carolinian Canada and the Grand River Conservation Authority are sponsoring a one-day conference of workshops and plenary sessions covering the issues of policy, process and pragmatics to complete Environmental Impact Statements. For information, see www.carolinian.org/conference.htm.

February 25–26, 2003
3RD ANNUAL NATIVE SEED QUALITY WORKSHOP
Omaha, Nebraska
A forum for those interested in the native seed industry. Sessions include the latest in native seed testing, conditioning, production, establishment and research. For more info, see www.mwseed.com/workshops.htm.

April 11–12, 2003
SPRING FIESTA 2003
Birmingham, Alabama
The Birmingham Botanical Gardens is holding a giant plant sale and celebration. For details, contact (205) 414-3950; www.bbgardens.org.

April 13–16, 2003
INAUGURAL NATIONAL CONFERENCE ON COASTAL AND ESTUARINE HABITAT RESTORATION
Baltimore, Maryland
Incorporating the non-profit, government, business and academic sectors, this nationwide forum will focus on the goals and practices of coastal and estuarine habitat restoration. For info, see www.estuaries.org.

July 3–6, 2003
STEWARDSHIP AND CONSERVATION IN CANADA CONFERENCE
Victoria, British Columbia
This second national gathering of Canada's stewardship and conservation communities will explore the ways that Canadian stewards protect our natural and cultural legacy for future generations. For more info, see www.stewardship2003.ca.

November 3–7, 2003
INVASIVE PLANTS IN NATURAL AND MANAGED SYSTEMS
Fort Lauderdale, Florida
For more info, see www.esa.org/ipinams-emapi7.

November 12–15, 2003
15TH ANNUAL SER CONFERENCE
Austin, Texas
The theme of the Society for Ecological Restoration's annual conference is "Assembling the Pieces: Restoration, Landscape Ecology, and Design." For more info, see www.ser.org.

Native Herbs: Potential Crops for Commercialization in Manitoba

by Keith Beaulieu

Native medicinal herbs have the potential to become economically important alternate crops for farm diversification on the Prairies. Agricultural diversification is important because farm bankruptcies have increased more than 1,000 percent in the last 20 years, three-quarters of bankruptcies occurring on the Prairies. There is much interest in herbs as alternate crops because of their high market value. The herbal product industry in 1998 was valued at more than $1 billion in Canada, more than $32 billion in the U.S. and more than $15 billion each in Asia and Europe. In 2002 the market has begun to level off, with growth slowing to five percent or less, a far cry from the 20 to 25 percent per year of the previous five years.

In Manitoba, most attention has been focussed on just a few herbal crops, the top five being: American ginseng, echinacea (mainly the narrow-leaved purple coneflower (*Echinacea angustifolia*) but also some southern
purple coneflower), St. John's wort, feverfew and milk thistle. Having many choices is good because most of these herbs have only a small niche in the marketplace, so overproduction and consequent price depression can happen easily, as ginseng producers know too well.

Of the herbs mentioned so far, only the narrow-leaved purple coneflower is actually native to Manitoba. This is important when you consider the suitability of native crops to our climate and soil and the fact that often they do not require prime agricultural land, so they will not compete for space with established crops.

It is important to bring such native species under cultivation to supply commercial markets because native species can not withstand the environmental impact of large-scale wild collection. Of growing concern is the extinction of specific medicinal plant species due to the overharvesting of native plant species. For example, both senega snakeroot (*Polygala senega* L.) and purple coneflower (*Echinacea angustifolia*) have been seriously overharvested by wildcrafters in many locations. (Wildcrafting is the harvesting of wild plants from their native environment.) The environmental impact of this overharvesting is expected to be negative and significant. Thus, the preservation of wild populations of indigenous plant germplasm by stimulating commercial cultivation is of the utmost importance to the sustainability of this industry. The unethical commercial harvesting of these plants from the wild, which threatens the sustainability of native plant populations in natural ecosystems, must be reduced.

The challenges facing potential producers of these native species include our limited knowledge of their natural genetic variability, which may affect quality, the agronomics of their sustainable production, and their actual market value. Most of the innovations to date for native herb production have come from farmers cautiously experimenting with these new crops. Innovations include modified cultural practices such as raised bed cultivation of ginseng in shelter belts to lower the cost of production,

PHOTOGRAPH COURTESY KEITH BEAULIEU

Purple coneflower being grown for commercial production

and modification of existing equipment or development of new equipment for the seeding, cultivation, and harvest of these specialty crops. Producers have to do their homework to learn the characteristics of each new crop, start on a small scale, understand the financial risks, and be willing to invest a substantial amount of time and labour.

Despite the high growth rate of the medicinal plant industry in North America (ca. 15 percent), no certified seeds of medicinal plants are available on the market. The highly priced seed (selling for $200–3,000 per kg) is, in most cases, of unknown genetic origin and often collected from wild plants. An ability to determine seed authenticity and chemotypical characteristics will provide a competitive advantage to the local herb industry. In the long run, it will foster development of a highly profitable medicinal plant seed industry and will also provide superior propagative material to an increasing number of growers throughout Western Canada.

Dr. Robin Marles and Dr. Faiz Ahmad of the Botany Department at Brandon University in Manitoba are working together with the Medicinal & Aromatic Plant Association of Manitoba (MAPAM) and myself at Manitoba Agriculture & Food on projects designed to enhance our understanding of the native medicinal plants of Manitoba. Through projects funded in part by Covering New Ground, a provincial initiative, MAPAM, the grower association, and Manitoba Agriculture & Food, we are attempting to determine the effects of cultivation on native medicinal plants, the active ingredient content of these plants, the effects of site-specific agronomics, and the preservation of genetic diversity. Dr. Marles and Dr. Ahmad are providing their expertise and facilities to protect these natural treasures and, together with Manitoba Agriculture & Food and the University of Manitoba Field Research Station at Carman, Manitoba, we are creating a genetic database that will help to protect these plants in the wild and at the same time provide a means of commercial production. We are hoping that our projects will prevent the extinction of these species in the wild and provide the industry with the knowledge to harvest these plants responsibly. This project addresses the environmental impact of excessive wildcrafting of native medicinal species and the effects this has on the local ecosystems, while attempting to develop a sustainable commercialization of these species through the development of an integrated pest management strategy, which will become a model for future industry development and species conservation. This project is unique and is part of an Inter-Provincial initiative to coordinate all research in Western Canada. This project is using the facilities and expertise of specialists in Saskatchewan, Alberta and Manitoba to develop a plan for the introduction and characterization of selected indigenous cultivars of medicinal plant species with economic viability for crop diversification and environmental conservation of important medicinal and spiritually significant plant species. The exploitation of native medicinal plants must be carefully controlled, otherwise overharvesting and the destruction of natural habitat will ruin the industry for future generations.

REFERENCES:
Dr Robin Marles, Brandon University
Manitoba Agriculture & Food's Factsheets

Keith Beaulieu is an Alternative Crop Specialist with Manitoba Agriculture & Food. He can be reached at kbeaulieu@gov.mb.ca or (204) 745-5673.

On the Road: Focus on Maine

Wild Gardens of Acadia – a National Park in Miniature

by Lorraine Brown

During a September trip to New England, we visited Acadia National Park in Maine. Acadia is a beautiful park, with great hikes through the ancient, worn-down mountains of Mount Desert Island, and good cycling and walking opportunities on a network of carriage roads designed and built by John D. Rockefeller in the 1930s. Acadia also has a wide variety of habitats and enormous plant diversity.

A very enjoyable way to become acquainted with the park's habitats and plants is to visit the Wild Gardens of Acadia. The garden presents a small area of each of the typical habitats found in the park, planted in a very natural way with the plants that grow in that habitat. I wish more parks would do this! An introductory panel explains the habitats you're about to see. All the plants are labelled with metal tags that are easy to find and read. Paths wind through the gardens, interspersed with comfortable benches.

The Bar Harbour Garden Club began building this garden in 1961. The site already had a stream running through it, which allowed them to easily recreate a variety of wetland habitats like bogs, stream banks and marshes. Probably a little bulldozer work was required to create the upland and dry upland habitats but today, over 40 years later, the gardens look like they've always been there. The transitions from one habitat to another are gradual and natural. Many of the shrubs are now 20 or more feet high.

I was amazed at the plants we saw there. The bog area, for example, has bog rosemary, cotton-grass and Labrador tea. The marsh had turtlehead in bloom, and winterberry. Goldthread was spreading over the forest floor in the woodland area. This is a plant I'd long heard about but never seen. Stands of bunchberry made me feel like I was in a deciduous forest somewhere on the Canadian Shield. Open water areas were lined with sweet gale and bayberry. The gardens must be beautiful in spring, with arrowhead, pickerelweed and water lilies in bloom.

It was the shrubs that I found the most useful to have displayed and identified. For the rest of our stay in the park, as we hiked through different habitats, we recognized mountain holly, bush-honeysuckle, sweetfern, bayberry and others. One day we hiked to the top of Cadillac Mountain – a botanical journey over a dry, rocky mountain top. Because of our visit to Wild Gardens of Acadia, I was able to identify crowberry and bristly sarsaparilla.

A garden like this would be an interesting addition to any park – an excellent way to use a disturbed area that park staff want to naturalize. Imagine one, for example, at the visitor centre at Algonquin Park in Ontario. An advantage of having an educational display of living plants growing right there in the park, is that they are at the same stages of growth (flowering, producing fruit, dispersing seeds, etc.) as the plants throughout the park. It made identification a cinch out on the trail, and added greatly to our enjoyment of the park.

PHOTOGRAPH BY ANDREW LEVERLE

Bluets and wild strawberry at Acadia National Park

The Wild Gardens of Acadia are maintained by a committee of volunteers. Students are hired each year to tend the gardens. Plants are collected as "rescues" from sites about to be developed, or purchased from nurseries that propagate native plants from seed. No collecting is done from the wild.

To find out more, enter "Wild Gardens of Acadia" into an Internet search engine.

NANPS member Lorraine Brown is a museum exhibit planner who runs her business, Apropos Planning, from a farmhouse north of Owen Sound, Ontario. On the property she shares with her husband, Andrew, she is developing an Ontario tallgrass prairie and growing grapes for wine making.

New & Noted

The Origins of Fruit & Vegetables
By Jonathan Roberts (New York: Universe Publishing, 2001. 228 pages, h.c., $22.50 US, $27.95 CDN, ISBN 0-7893-0656-5)

Promising gardeners and foodies "a little history in their book diet," *The Origins of Fruit & Vegetables* delivers a sumptuous banquet – a feast for the eyes and the mind. Tracing the natural and cultural histories of more than 40 edible species, each entry in the book (from asparagus to watermelon) explores where the fruit or vegetable originated, its first recorded use and its importance in antiquity through to the present. Lavishly illustrated with an astonishing range of historic and contemporary drawings, paintings and photographs – the section on olives, for example, includes a photo of a Greek amphora, showing olive gathering c.520 B.C., alongside a Picasso pastel of a dove bearing an olive branch – this book is both a gorgeous coffee-table book *and* a useful reference guide. If you've ever wondered about the origins of the fruits and vegetables on your dinner table or growing in your garden, you'll find answers (for 40 of them, anyway) in this wonderful book.
Reviewed by Lorraine Johnson

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Lichens of North America
By Irwin Brodo, Stephen Sharnoff and Sylvia Duran Sharnoff
(New Haven, Connecticut: Yale University Press, 2001, 795 pages, h.c., $69.95 US, ISBN 0-300-08249-5)

I haven't had the nerve to weigh this mighty tome, but let's just say it's worth every pound ... and every tired arm muscle that lifts it off the shelf again and again to explore the treasures within. Only the very hardy will lug this extraordinary guide into the field; the rest of us will lose ourselves in its 795 pages of glorious photographs and definitive text, all celebrating the long-neglected, often-overlooked, lowly lichen.

Lichens of North America is *the* compendium of scientific knowledge on lichens – thought to be among the oldest living things on Earth – and their crucial role in the health of our planet. Open the book up to any page, and I guarantee that you'll never be able to look at a lichen-crusted rock in the same way again; you'll find yourself wondering, is that powder-foot British soldier, deflated tube lichen, crowned pixie cup, organ pipe or moonglow? And how do these mysterious organisms survive such hostile environments, often growing just millimetres per year? Reading this book, you'll probably become as obsessed with lichens as the author (emeritus research scientist at the Canadian Museum of Nature) clearly is – and a whole new wonderful world of beauty and diversity will be revealed.
Reviewed by Lorraine Johnson

❖

The Landscaping Revolution: Garden with Mother Nature, Not Against Her
By Andy Wasowski with Sally Wasowski (Lincolnwood, Illinois: Contemporary Books, 2000. 166 pages, h.c., $27.95 US, $41.95 CDN, ISBN 0-8092-2665-0)

If you've been toiling away in your backyard, creating wildlife habitat using native plants, conserving water, enhancing biodiversity and generally making the planet a better place, welcome to the Landscaping Revolution! Author Andy Wasowski has written a call to arms for gardeners like you who are searching for a better way to plant, maintain and enjoy their gardens. At once informed, provocative, compelling and, above all, humorous, Wasowski traces the history of the grassroots (make that native-plants-roots) revolution that is slowly but surely sweeping across North America. He presents common-sense approaches to gardening with a wealth of information on plants, trees and shrubs, along with profiles of gardens across North America. Full of gorgeous photographs and illustrations, this book is a gem.
Reviewed by Lorraine Johnson

Lorrie Otto, one of the many "landscaping revolutionaries" profiled in *The Landscaping Revolution*

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Cultivating Delight: A Natural History of My Garden
By Diane Ackerman (New York: HarperCollins, 2002. 261 pages, h.c., $25 US, $37.95 CDN, ISBN 0-06-019986-5)

The trouble with many experts on the great green world is that they tend to be boring. Their plodding prose – often over-detailed and full of long sentences – lacks the human touch.

That's what makes naturalist Diane Ackerman so inspiring. Whatever she's writing about – it could be a tree frog or the scent gene in snapdragons – Ackerman makes the subject come alive. In fact, reading her latest book – *Cultivating Delight* – I often felt as if I were accompanying her in a stroll around her upstate New York property, and listening to her point out items of interest.

Ackerman is clearly a diligent researcher and she manages to pack an amazing amount of information into this book. In chapter after chapter, I learned so many entertaining and useful things – about people, plants, birds, squirrels, insects, history and the world in general. It was illuminating to discover, for instance, that "spring travels north at about 13 miles a day, which is 47.6 feet per minute or about 1.23 inches a second" and that our genes differ from chimpanzees by only about one percent. As for the business of gardening, she's remarkably knowledgeable about roses, and slips in much practical stuff about the kinds of roses that will cope with northern climates. And her descriptions of winter are some of the most eloquent I've ever read.

I have one quibble: sometimes Ackerman can get a bit "precious." Reading how she reclines, sipping tea, on yellow and purple cushions in her study – and how she habitually hauls hundreds of rose blooms indoors, to arrange in elegant vases – I was tempted to say "Aw, c'mon." And I did wonder at her benign, tolerant attitude towards squirrels and deer, which consistently attack her tulips and corn. (I cope with a northern country garden similar to Ackerman's – and I confess that I've learned to loathe these persistent trespassers.)

Even so, *Cultivating Delight* lives up to its name. It's a delightful read – and a perfect choice to curl up with on a cold, winter night.
Reviewed by Sonia Day, a gardening author who lives in Wellington County, Ontario.

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NANPS members can order back issues for just $1 each; send your request and cheque to NANPS, P.O. Box 84, Station D, Etobicoke, Ontario M9A 4X1 or e-mail nanps@nanps.org.

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In the News

The California Weed Mapping Handbook is available online at www.cdfa.ca.gov/phpps/ipc/noxweedinfo/noxwdinfo_hp.htm. The handbook will be of interest to those working to control noxious weeds in California.

The U.S. Environmental Protection Agency has created a public restoration project database. There are currently approximately 300 projects in the database, but the EPA is hoping to receive thousands of entries detailing any kind of restoration projects, at any location, in any stage of implementation or development. To view the database, see www.epa.gov/owow/wetlands/restore and click on the Restoration Inventory link.

A wonderful resource for nature lovers and gardeners is finally back in print. *Field and Forest: A Guide to Native Landscapes for Gardeners and Naturalists*, by Jane Scott, is both inspirational and instructive, teaching gardeners how to capture the essence of natural landscapes in their gardens. Published by The Blackburn Press, this paperback book is a classic, and can be ordered through your local bookstore (ISBN 1-930665-61-X, 195 pages, $23.95 US). Another classic returned to print by Blackburn Press is the *Flora of Indiana* by Charles C. Dean, a 1,236-page reference book and the primary source of information for those seriously involved in field botany in Indiana. (ISBN 1-930665-59-8, h.c., $124.95 US)

Dr. Nancy Turner, a leader in the field of traditional plant use by First Nations in western North America, has received Canada's highest botany award for her contributions to Canadian ethnobotany. The Lawson Medal, issued by the Canadian Botanical Association, is that group's most prestigious honour. Dr. Turner's work with communities in the documentation and, in some cases, rediscovery of their cultural heritage has helped to formulate and develop major public policy decisions on land use and economic development issues.

The Garden Club of America announces competition for its Fellowship in Ecological Restoration. This GCA fellowship, established in 2000, is awarded annually to an exceptional graduate student to assist with study and research. The award carries a grant of $8,000 to support specialized study in ecological restoration at a leading accredited university in the U.S. This fellowship is administered by the University of Wisconsin-Madison Arboretum and may be renewed pending review. For information, contact Gregory D. Armstrong at (608) 262-2746 or gdarmstr@facstaff.wisc.edu.

The Heinz Center recently released *The State of the Nation's Ecosystems*, the product of nearly five years of work by close to 150 experts from business, environmental organizations, academic institutions, and federal, state and local governments. The report identifies indicators of the use and condition of ecosystems in the United States, provides data and trends where possible, and highlights gaps in the ability to report on key characteristics. The report is available at www.heinzctr.org/ecosystems.

An Acquatic Plant Manual for Washington's Freshwater Plants is now available online at www.ecy.wa.gov/programs/wq/plants/plantid2/index.html. The guide includes descriptions, photographs and line drawings of many Pacific Northwest freshwater plants.

In Memoriam

Jamie Bell (April 22, 1944–September 7, 2002)

It is with sadness that we note the sudden passing of Jamie Bell, a committed community builder and High Park steward in Toronto, Ontario. Jamie's optimism, energy and belief that "we can change the world by starting in our own neighbourhood" was inspiring to so many people; his leadership on the High Park Citizens Advisory Committee was instrumental in guiding restoration activities in the park. Our condolences to his family and many friends.

Continued from page 1

and gently tease the sucker away from the mother plant and plant it so that the new one will come up at a discrete distance from the main plant. (This is one case where a plant's tendency to sucker is a bonus, in my opinion.) It should be watered deeply during droughts, especially in its first years, and rich soil is best.

I became the proud owner of an *Itea* shrub three years ago. During its first winter in my garden, about nine feet of snow was unceremoniously piled on top of my new shrub by my son before I could suggest another location for his mountain. After enduring the ongoing insult of my son having a glorious time sliding down his snow hill (right over the shrub's head) all winter, the *Itea* emerged slowly in the spring, branches all broken and bent but still clinging to its fall leaves. I despaired of it ever recovering, but it managed to produce a few flowers and by the end of the summer had regained some of its height and structure. In the following years it has continued to grace a difficult spot against a north-facing fence as a testament to its tough, resilient habit. If you site the shrub where there might be a chance of seeing it during the winter, you will no doubt enjoy its reddish winter bark, especially if shown against some evergreen plant.

My woody plant guru, Michael Dirr, author of *Manual of Woody Landscape Plants*, raves about this plant, suggesting that in addition to the attributes I have mentioned, the plant is "amazingly adaptable and has displayed drought tolerance: appears pH adaptable." He reports that it has no serious diseases or insects, which I can confirm. 'Henry's Garnet' is the selection that is usually available at nurseries and Dirr affirms that both its fall colour and flowers are superior to the species. I have also seen a dwarf form offered but as I am not concerned about the shrub getting too tall I haven't bought this one. (I don't expect it will much surpass four feet, especially if it is constantly set back by difficult winters.) Dirr informs us that *Itea* is found in the wild in pine barrens in New Jersey to Florida, west to Missouri and Louisiana. Some day I hope to seek it out in its natural setting. For now, though, I will be content to enjoy its four seasons of beauty in the confines of my small backyard, as I sing its praises to all who will listen.

Catherine Siddall lives and gardens in Toronto, where she is a long-time member of the Toronto and Parkdale Horticultural Societies. Catherine's garden design, build and maintenance business is thriving and she has successfully insinuated many native plants into clients' landscapes. She is also a partner in Siddall and Cope, which offers services to groups wanting to establish community gardens or naturalization projects. She can be reached at (416) 531-2253 or rc.siddall@sympatico.ca.

NANPS News

The NANPS Annual General Meeting, held November 2, 2002 at the Civic Garden Centre in Toronto, was a big success, thanks to the effort of many volunteers. Along with the business portion of the meeting and the presentation of the Paul McGaw Memorial Conservation Award (see story on page 2), there were two guest speakers. Bob Barnett gave a talk on the Escarpment Biosphere Conservancy, which buys and protects land in the Niagara Escarpment (see www.escarpment.ca). Mathis Natvik, who spearheaded a campaign to save old-growth Carolinian forest in southwestern Ontario, gave a slide talk about his pioneering forest restoration techniques. Many thanks to everyone who contributed and made this AGM a resounding success.

At the AGM, four new Board members volunteered to join the group and help steer the Society's activities: Feng Gao, who has a Master's degree from the Forest School of the University of Montana and a horticulture background; Kathy Edgar, who trained as a chartered accountant and runs a consulting business for non-profit organizations; Irene Fedun, who operates a landscaping business and is a founding member of the Fatal Light Awareness Program (which urges building owners to turn off their lights at night and thus reduce bird fatalities in urban areas); and Darcie McKelvey, who worked as a lawyer for many years and is an avid native plant gardener. NANPS extends a warm welcome and many thanks to these new Board members.

NANPS Seed Exchange

The full list of native plant seeds available to NANPS members will be published in the Winter issue of *The Blazing Star*, to be mailed in February, 2003. The Seed Exchange list will also be available on the NANPS website (www.nanps.org).

Donations of seeds to the NANPS Seed Exchange are still being gratefully accepted. Send cleaned seed (in envelopes identifying the species with common and botanical names, along with collection location, noting garden or wild) to NANPS Seed Exchange, P.O. Box 84, Station D, Etobicoke, Ontario M9A 4X1. For more info, call (416) 631-4438 or e-mail nanps@nanps.org.

Many thanks to our Seed Exchange donors!