Message from the President

Stephen Heard

It’s December already – with winter snow on the way! You may not spend as much time walking the Garden in winter, but there’s still plenty going on. True, the volunteers who build and maintain the Garden don’t pull weeds in winter. But there’s a lot of other work to do: planning future programs and development, fundraising, maintaining and restocking our tools and supplies, and more.

Would you like to help? Please get in touch – you can support our work as a volunteer or with a financial contribution.

Meanwhile, our plants may be dormant, but the Garden is still open for your visits – especially if you ski or snowshoe. The best winter access will be from our Cameron Court entrance. When you visit, take a picture, and tag us when you post on Facebook, Instagram and/or Twitter, #frederictonbotanicgarden. We love to see visitors enjoying our outdoor space.

We hope you’ll enjoy this holiday Newsletter; an update on all our progress this year, recommendations for plant and nature related books to give as gifts, some seasonal Science in the Garden, and more. Don’t let the approaching snow keep you from thinking about our Garden!

Give the Gift of Support

This holiday season consider giving a gift donation, a gift membership or perhaps both to those on your list with an interest in Helping Our Garden Grow.

Gifts can be given through the Garden’s web site: https://www.frederictonbotanicgarden.com/support-us or arranged in person at the Resource Centre on Wednesday afternoons. A card of recognition will be sent from the Garden to the gift recipient in your name.

The names of all gift givers will be entered in a draw for a Garden family photo session donated by professional photographer, Sara Travis.

Be sure to tell your friends about this unique gift option.

Happy Holidays from all of us at the Garden!

Fundraising Committee
Progress Report for 2021
Jim Goltz

It has been another highly productive year for the Fredericton Botanic Garden, thanks to the many contributions of staff, volunteers and donors.

The unusually early spring snow-melt meant that garden clean up activities and weed removal could start much earlier than in most previous years. New plantings were made throughout the Botanic Garden in 2021, and the extremely mild weather this fall enabled planting, weeding and invasive plant removal to continue well into November.

Tremendous progress was made on the Wabanaki Healing Garden and it has nearly been completed. It features over 50 species of native and naturalized plants that were used by Indigenous people for healing and has been shaped predominantly as a medicine wheel. Flagstones and temporary rustic log benches have been placed at the centre of this garden. An official opening ceremony is being planned for June 2022.

The Food Forest is being expanded thanks to a grant from the province’s Community Food Action program and the tireless efforts of volunteer Sima Usvyatsov. On November 6, at least 30 volunteers helped plant trees in this new garden and elsewhere in the Botanic Garden. Many of the plantings outside of the Food Forest were strategically placed in anticipation of catastrophic ash tree mortality that Emerald Ash Borer is expected to cause.
The Pollinator Garden continued to be our showiest garden, with blooms continuing from early April through November. Additions included an educational bee hotel and a colourful mailbox designed for dispersing to the public seeds of plant species that are especially attractive to pollinators. New bird houses were donated for both the Pollinator Garden and throughout the Botanic Garden.

Substantial work was done along the Creekside Trail this summer. Along with extensive invasive species removal, woodchips were added to improve walking conditions along the muddy stretches. Work will continue in 2022 to shift the trail in a few areas where erosion is a problem.

Erosion control work took place throughout many garden beds and trails this summer. A berm planted with daylilies and tulips was created just above the Daylily Garden to deflect runoff. The latest efforts to improve drainage in the Peony Garden included the construction of a berm and a ditch. Planting began to create a hedge of Bayberry and Sweet Pepperbush on this berm. Rock borders were created or expanded in many places such as the White Garden, the Hal Hinds Memorial Garden and the Fern Walkway.

Major steps were taken to improve the Garden’s infrastructure. The addition of water totes made it much easier to deal with the drought issues that prevailed in the spring and to nurture nearby plantings throughout the summer and fall.

The City constructed bins to store topsoil, compost, sand and crushed rock in a consolidated manner. It is tidier than having piles of these materials scattered throughout the Botanic Garden and much more efficient for the City crews when they deliver the materials.

A new memorial bench was installed in the Memorial Garden and another near the NB Literature Garden. In 2022, memorial benches will be added near the Peony Garden and the Pond.

A concrete Japanese lantern was installed near the Resource Centre and a second was placed between the Hal Hinds Memorial Garden and the Rhododendron Garden. These were donated by a member who passed away several years ago and who wished to remain anonymous.

Unfortunately, vandalism and theft continue to be problematic. It is disconcerting that all of the potatoes and most of the rhubarb are stolen from the NB Literature Garden each year, and that vandals have displaced and overturned logs, and dislodged ferns in the Fern Gallery multiple times in the last two years.

Overall, it is very exciting to witness how the Fredericton Botanic Garden continues to grow, and that visitors are very appreciative of the progress that is being made. Much to our surprise, a visitor remarked that the Fredericton Botanic Garden “compares favourably to the Montreal Botanic Garden”.

Photo credit: Jay Chapman
Book Recommendations

Board of Directors

**East Coast Backyard Nature Guide** by Jeffrey C. Domm (2021) A handy reference guide for families wanting to explore their own backyard or natural areas in the Maritimes. Fully illustrated, it is packed with identification clues and information on the most common birds, butterflies, mammals, trees, wildflowers, bugs, and mushrooms. – Cynthia Stacey

**Finding the Mother Tree** by Suzanne Simard. (2021) A New York Times bestseller, the book is a combination of memoir and biology/forest ecology. An interesting read that will change how you view trees and their interconnectedness to one another and to other living things in the forest. – Cynthia Stacey

**The Great Trees of New Brunswick** by David Palmer and Tracy Glynn with photographs by Arielle DeMerchant. (2nd edition, 2019) This book is the essential reference to the trees of the Acadian forest. This book doubles as an illuminating species guide and a compendium of “champion” trees, drawn from all corners of the province. It celebrates New Brunswick’s tallest, fastest-growing and quirkiest trees. It weaves science with traditional wisdom and empirical data with lyrical prose, thus revealing the love story between New Brunswickers and their forests. – Louis-Philippe Albert

**Lois Hole’s Perennial Favourites** (1995) Want to transform your lawn into a beautiful garden on a low budget? – then this book is for you. Spend a few winter months perusing through Hole’s list—“includes pointers for selecting flowers for color, height range, blooming periods, sun/shade, as well as many other valuable gardening hints” and choose some favourites (not easy!) Then either start your selected plants from seed, or find a gardening friend/neighbour who is willing to share root starts and you will enjoy a beautiful perennial garden year after year. – Tess Madigan

**Reader’s Digest Illustrated Guide to Gardening in Canada** Believe it or not this is my favourite gardening book. When I first bought my home I picked one up at a yard sale and while there are newer versions still in print, I suspect everyone has a family member with a copy laying around. It is so straightforward, has great illustrations and easy to follow information for gardeners of all skill levels. It was my starting point for gardening and I still reference it often. Whenever someone I know buys a home it’s my go to gift for them - it is a fantastic gardening companion. – Joanna Mills

**Weird Plants** by Chris Thorogood (2019) Some people like the most majestic plants, or the most beautiful, but Steve really likes the weird ones - and wow, are some plants ever weird. This book tells some great weird-plant stories, and Thorogood's paintings to illustrate it are spectacular. – Steve Heard

**Wicked Plants: The Weed that Killed Lincoln’s Mother & Other Botanical Atrocities** by Amy Stewart (2009) A fun book about the nastier side of plants! A mix of plant descriptions along with their wicked properties, botanical illustrations, historical tidbits. An excellent addition to any plant library. – Amy Parachnowitsch
Garden Shop Books

Each book in the Garden Shop would make a great addition to your own bookshelf, or a wonderful gift for a gardener or naturalist in your life. As a bonus, a share of the proceeds benefits the Garden! The Resource Centre is open Wednesday afternoons throughout the winter.

**Charles Darwin’s Barnacle and David Bowie’s Spider: How Scientific Names Celebrate Adventurers, Heroes, and Even a Few Scoundrels** (Stephen Heard, 2020) – By Garden President Stephen Heard, this book is an exploration of plant and animal names that are based on names of people – such as garden favourites *Forsythia* and *Magnolia*. These names offer stories that are sometimes funny, sometimes touching, and always fascinating.

**Flora of New Brunswick** by Hal Hinds (2nd edition, 2000) – This is the authoritative reference work on the native and introduced plants of our province. It includes identification keys, illustrations, distribution maps, notes on natural history, medicinal, and culinary uses, and common names in English, French, Maliseet, and Mi’kmaw. The *Flora* is indispensable for anyone with a serious interest in our province’s plant life.

**Haydays** by Evans Estabrooks (2019) – A charming memoir of growing up in the 1940s and 1950s on a farm near Sackville, NB. From *The Shadow* on night-time radio to soda crackers loose in a barrel at the general store, *Haydays* paints a picture of a curious young boy’s life with friends, family, and nature around him.

**Six Salmon Rivers and Another and Song of the Reel** by George Frederick Clarke. Filled with tales told by old-time guides and real-life stories about backwoods eccentrics and early explorers, and fellow sportsmen, *Six Salmon Rivers* is featured in the NB Literature Garden by the mountain ash. *Song of the Reel* is its companion.

FBGA Membership

A Garden membership provides ongoing support to the maintenance of the Fredericton Botanic Garden.

In addition to free admission to most FBGA events and access to our Lending Library, members receive a 10% discount at local garden centers.

Co-Op Country Store (Northside)
Corn Hill Nurseries
Curries Greenhouses
Kent Garden Center
Scott’s Nursery
Wetmore’s Nursery

Join or renew online at frederictonbotanicgarden.com/membership

Paper forms are also available from the link above and at the Resource Centre.

Gift memberships are also available.

Thank you for your support!
Science in the Garden  
Poinsettias  
Amy Parachnowitsch

Christmas is a time for plants. There is the Christmas tree, of course. Mistletoe and holly also play prominent roles. However, in more recent history the poinsettia, *Euphorbia pulcherrima*, has become a symbol of Christmas and a staple for holiday decorating. The scientific name means “the prettiest Euphorbia” and that certainly rings true if you are familiar with any of the poinsettia relatives (spurges) you might encounter in New Brunswick. Claims of beauty and associations with Christmas comes from the bright red colours of the poinsettia that appear in December. Bright colours of plants can delight us as gardeners but in nature these are often about attracting a different kind of animal.

For most of their evolutionary history, poinsettias lived out their lives in Mexico, using those colours to attract pollinators and not holiday shoppers. In the plant world, most attractive colours and displays involve flower petals. Poinsettias are one of the species that instead uses bracts for this purpose. Bracts are modified leaves that look much like their green counterparts, and in fact are green throughout the year until flowering. Poinsettia flowers are relatively small and inconspicuous structures in the middle of all that red. These flowers produce nectar, although that can vary with the household varieties. Nectar is another clue that these plants are aiming to attract pollinators. In Mexico, at least for cultivars, poinsettias are visited by a range of insects such as bees, flies, beetles, and butterflies. Why flower in December? Well, in Mexico, this is presumably an excellent time to attract these pollinators which have long since been dormant in our northern climes.

Poinsettia reproduction has a few interesting adaptations. They are dependent on pollinators to set fruit because the flowers do not have a mechanism to move pollen to the stigmas themselves. If you look closely at the little yellow flowers on your table centerpiece, you’ll see some parts have yellow topped ‘pinheads’. These correspond to the male flowers—those yellow pinheads contain the pollen. The female flowers lack these yellow pinheads and there are fewer in the display (I couldn’t see any on my plant—just male or developing flowers). Because the sexual parts are on separate flowers, pollen doesn’t easily move from one to the other.

The poinsettia that has become commonplace during the winter holidays is really a marvel of modern plant manipulation. The wild version is a small tree that would be rather unwieldy to bring into our homes, and it is quite picky in its needs. The first USA Ambassador to Mexico, Joel Roberts Poinsett (recognise that name?), took cuttings of those wild plants and sent them home in the early 1800s. He shared the cuttings around with friends and botanists where they gained popularity. But it took a farmer from California, Paul Ecke, to make poinsettia the popular plant it is today. Prior to the 1960s, poinsettia was sold as a cut flower for arrangements and mostly close to where it can grow outside (ie southern USA). Plant breeding and selection for more compact plants that could be sold in pots and withstand mistreatment and neglect by the average purchaser were key to the success of the plant. You can thank the Ecke Ranch for making poinsettia a part of the holiday decorations; but it is poinsettia’s pollination ecology that is the basis for that splash of colour in December.

Separation of sexual parts is a common adaptation for plants, often because it reduces self-pollination. Self-pollination can be a bad thing for plants just as inbreeding can cause problems in animals. That’s where pollinators come in: they move pollen from male to female flowers—hopefully for the plant from a different plant and not within their own flowers! When you’re looking closely at your poinsettia flowers, you’ll probably also notice some little yellow cup-like structures. These are nectaries where nectar rewards are produced. That yellow colour might help direct pollinators to the nectar, and while foraging, pollinators get dusted with pollen to be carried to the next plant. However, there is very little information available about pollination in the wild plants. While we can gather clues as to the interactions with pollinators from the structures of the flowers, it makes you wonder what could be learned from observing wild plants in Mexico!
Volunteers – Actively Helping Our Garden Grow
Tess Madigan

During one of our last Weeding Wednesday sessions this year, when the evenings were cooling off and dusk was coming on earlier and faster, our group of volunteers were working in the Peony Garden, satisfyingly pulling weeds to prevent them from gaining a strong hold come spring time.

While some friends were enjoying a lively conversation as they weeded the periphery of the garden and others were enjoying working away in solitude, another two weederers had just discovered their shared love of bonsai plants and were talking passionately in the middle of the garden about their favourites, ideal groundcovers, pruning, etc.

Overhearing this conversation was especially enchanting because it was shared between Mary who, in her 70s, is one of our oldest volunteers - a retired science and math teacher from the United Kingdom – and Tariq, one of our youngest volunteers- a 12-year-old student, who lived in Qatar for 4 years, is fluent in Arab, English and French and who sees becoming a botanist in his future.

This encounter was a delightful reminder of how working together with plants can help us all cultivate connectivity, inclusivity and a more fulfilled life. Sharing a love of gardening, nature, learning about plants and connecting with others, has no limits. Regardless of age, race, gender, language, culture, sexuality or socio-economic status, if we all dig deep enough we discover that whether we are beginners or master gardeners, we all have something to share and something to learn. In this way not only does our Garden Grow but also we do too.

Our evening Weeding Wednesday sessions start in May, after the snow is gone and the days are becoming warmer and lighter, and end the last week of September when the weeds have given up growing as vigorously and darkness comes earlier. We weed from 6pm to 8pm, rain or shine and it is a case of ‘many hands make light work’. People take part for a variety of reasons – to meet new people, enjoy conversation, to learn about plants and gardening, to bliss out in the peaceful, stunning surroundings and of course to Help Our Garden Grow.

If you are interested in taking on a more active role in our Botanic Garden, please consider becoming a member and reaching out to us re volunteer opportunities. We try to accommodate folks who would like to set up weekly or bi-weekly sessions with friends, mothers/daughters, fathers/sons, neighbours/kids, etc. by teaming you up with one of our volunteer leaders.

We can learn so much about our natural surroundings and about each other while working together in a garden. So, whatever you want to call it – Weeding Wednesdays, Garden or Nature Therapy – I believe we can all benefit from more of it. We look forward to seeing you in the Garden.
**Thank you** to everyone who supported our 2nd annual Holiday Plant Sale! The funds generated will be well put to use Helping the Garden Grow.

**Cyclamen Care Tips**

With its opposite bloom season and tolerance for cooler temperatures, they make ideal winter plants. With the proper care, your indoor cyclamen (*Cyclamen persicum*) will bloom for several months and then again next fall.

While your cyclamen is blooming, keep it moist. Water from below so that water doesn’t touch the leaves or stems, but do not leave the plant sitting in water.

Cyclamen can tolerate sun or partial shade, but thrive best away from direct afternoon sun. Their preferred temperature range is 10° - 20°.

Reduce watering during the summer and let the plant go dormant. The leaves will turn yellow and die, but this is normal—no need to throw your plant out at this stage! The tuber will remain alive and the foliage, followed by blooms, will come back in the fall.

The Fredericton Botanic Garden Association Newsletter is published by the Fredericton Botanic Garden Association, Inc. The FBGA is a registered charitable organization. The objectives of the FBGA are to guide the establishment of the Fredericton Botanic Garden and to foster an awareness and appreciation of plants. For information on membership and to become involved, please contact us:

fredbotanicgarden@gmail.com
(506) 452-9269
10 Cameron Court
Fredericton, NB E3B 2R9

[http://frederictonbotanicgarden.com](http://frederictonbotanicgarden.com)

**Board of Directors**

**President:** Stephen Heard  
**Vice President:** John Welling  
**Past President:** Jim Goltz  
**Treasurer:** Cynthia Stacey  
**Secretary:** Louis-Philippe Albert  
Tess Madigan  
Joanna Mills  
Amy Parachnowitsch  
Marg Routledge  
Michael Stastny

**Main Parking Lot:** 695 Prospect Street