

**Fredericton Botanic Garden  
Association Newsletter**

**Bulletin du Jardin botanique  
de Fredericton**

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Winter 2018

*Gardening in Winter:*

*A Message from the President James Goltz*

Gardens in the Fredericton area are all now blanketed in snow, hopefully well-protected from winter's chill and killing frosts. While we may not be enjoying the persistent run of brutally frigid temperatures, it does have its upside; it will undoubtedly take its toll on many of the invasive insect pests that are posing a risk to our native trees and other plants. Gardeners are looking forward to spring and the opportunities it presents for enjoying the out-of-doors in more hospitable weather conditions, but why not embrace winter and the exciting gardening opportunities it provides?

One of my favourite winter gardening hobbies is to plant seeds of exotic fruits that I have savoured and to see what grows. Most of us have planted avocado seeds, which give rise to an umbrella-like cluster of leaves on a spindly stalk, but I've had fun getting seeds of dragonfruit, papaya, passionfruit, dates, loquats, lychees and various citrus fruits to germinate and produce small plants. Greenhouse conditions and a much longer investment of time would be required to get any of these to bear fruit, but each experiment teaches me about the food plants I have enjoyed. For example, it was a huge surprise for me to learn that dragonfruit is produced by a cactus. I've resisted the urge to try growing mangoes, since this member of the poison ivy family has been known to cause contact dermatitis similar to that which occurs following contact with poison ivy.

Another favourite hobby is winter botany, trying to identify native and garden plants by their remnant fruiting bodies, withered leaves and stalks that poke their heads above the snow. To be most successful at this, it's helpful to follow the growth and development of plants throughout the year.

It's also fun to see what species of winter birds feed on the fruit and seeds of native and garden plants. For example, American Goldfinches and Common Redpolls love the fruits of birch trees. Snow Buntings favour grasses and various weeds that grow in open areas. Fruiting heads of sunflowers are popular with many species, including Blue Jays, Black-capped Chickadees, Northern Cardinals and Evening Grosbeaks. Pine Grosbeaks extract the seeds from apples and Highbush Cranberries, although they don't consume the

**Annual General Meeting**

**Saturday February 24, 2018, 1:00 pm  
Unitarian Fellowship, 874 York Street**

**Speaker: Tom Smart, Beaverbrook Art Gallery**

Topic: "Art and Gardens: From earthly delights, water lilies and bronze monoliths to radiant, heavenly imaginings"

**Talks in the Garden**

*Looking ahead: Green thumbs  
in New Brunswick under a changing climate*

**Speaker: Michael Stastny**

**Thursday, January 18, 7 pm**

Fredericton Botanic Garden Association Resource  
Centre on Cameron Court

See page 3 for more "Talks"

**Seedy Saturday**

**Saturday, March 24, 2018 1:00 pm**

Fredericton Botanic Garden Resource Center



MISTLE THRUSH, Dec 28, 2017 —photo Peter Gadd

flavourful flesh of these fruits. Bohemian waxwings love the fruit of mountain ash, roses and crabapples, and swallow the smaller fruits whole, sometimes getting drunk when the fruit has fermented. Fruit-eating thrushes, like American Robins, will often overwinter in larger numbers than usual



when there is a bumper crop of fruits like mountain ash and crabapples. Mountain ash fruits at Miramichi have been providing a source of food for a Mistle Thrush, a European species that has shown up for the first time ever in North America, delighting birdwatchers from far and wide.

Winter is a perfect time for planning. What can you plant in your garden to attract birds, pollinators and other wildlife? What plantings will provide you with ecological services like shelter, windbreaks, and shade, and help create microclimates suitable for more fastidious garden plants? How can you make your garden more alluring, beautiful and serene all year around? When planning, it's important to take care to avoid introducing or spreading invasive species (see Steve Heard's article on "Gardens, beachheads and invasions" in this issue of the newsletter).

Please be sure to join us for our upcoming series of Talks in the Garden, which are designed to stimulate your minds and inspire your creativity. We welcome your participation and contributions of ideas, time and energy to help make the Fredericton Botanic Garden more appealing, welcoming and exciting for our members and visitors, including people of all ages, genders and cultures.

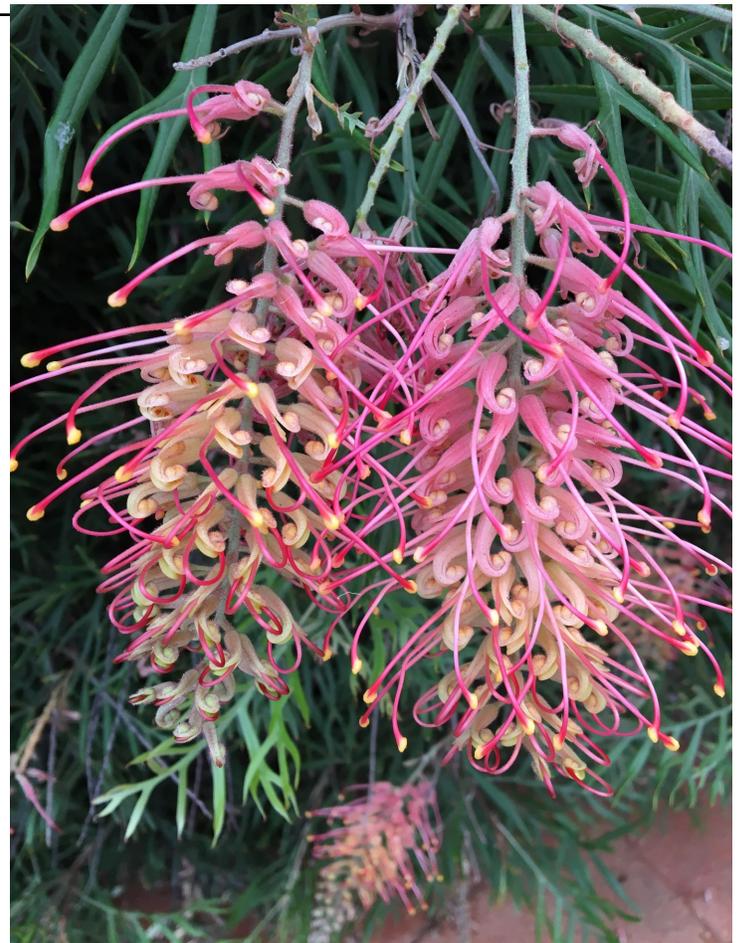
## A visit to Olive Pink Botanic Garden Alice Springs, Northern Territory, Australia)

By Marg Routledge

A treat for anyone who loves plants and gardens is a visit to one of our many sister Botanic Gardens. I recently made a visit to what is known as the Red Centre of Australia, including three days touring the vast area surrounding the town of Alice Springs, and two days at Uluru-Kata Tjuta National Park (Uluru was formerly known as Ayers Rock). A highlight for me was a full Australian breakfast at the garden's outdoor café followed by a walk through the 49 acre Olive Pink Botanic Garden.

The Olive Pink Garden was founded in 1956 by Miss Olive Muriel Pink. "An unconventional anthropologist, an outspoken advocate for Aboriginal rights, a botanical artist and a woman ahead of her time in promoting the cultivation of Australia's native plants, Miss Pink was the Garden's Honorary Curator from 1956 until her death in 1975, aged 91." She lived in the garden in a small hut, and worked with Warlpiri (Aboriginal) gardeners. Miss Pink's vision was to preserve and grow native trees, shrubs and flowers as a "soulfeeding" antidote to the restless rush and materialism of what "modern living" entails in this isolated town (quoted text from the Garden's Guide Booklet).

The Garden didn't open to the public until 1985. It now has over 600 Central Australian plant species, including 33 that are rare or threatened. An extraordinary and unique collection of medicinal and bushtucker (food) plants is important to ongoing research in the production of potent



*Grevillea "Robyn Gordon", Marg Routledge*

medicines and new spices. It provides important habitat for the small Black-footed Rock Wallabee, many other native mammals, frogs, reptiles and more than 80 bird species.

The Garden features three self-guided walks. The Annie Myers Hill Walk introduces you to a number of drought resistant plants; some, known as "resurrection plants" die back and regenerate from rootstocks or tubers once rain falls again. From the top of the hill, you get a panoramic view of the MacDonnell Ranges. The Wattle (Acacia) Walk features several of the over 1000 different wattles that grow in Australia including the country's national flower, the Golden Wattle (*Acacia pycnantha*). Mallee is the name given to multi-stemmed trees which belong to the gum tree genera *Eucalyptus* and *Corymbia*. Along The Mallee Walk you can identify fourteen different eucalypts and bloodwoods.

Peter Latz, a renowned Central Australian botanist and author, wrote the following: "When our European ancestors first arrived here they found the climate and plants very different to those they left behind. They chose to grow familiar European plants in their gardens and fields. Unfortunately we second-generation Australians are still not in love with our native flora. It's about time we changed this. Olive Pink set the example almost 60 years ago."





*Sturt's desert pea (Swainsonia formosa), Paul Balfe*

This is the true outback of Australia and for most of the year it is a desert. When I visited in November, the river beds have no water, even though all along the highways "Floodway" signs are posted along with two metre water-level posts. The town of Alice Springs lies between the east and west MacDonnell Ranges. During heavy rains the water pours down from the hills causing flash floods. Uluru lies 460 km southwest of Alice Springs. Along the 'bitumen' highway, there are a few roadhouses where one can purchase food, petrol and sometimes accommodation, but most of this vast area is occupied by cattle ranches. The Olive Pink Garden is a celebration of colour and native vegetation and a must-see in this area.

## Your Garden on social media

Did you know that you don't have to wait for our next *Newsletter* for news about, and from, your Garden?

You'll find us on Twitter or on Facebook, and you don't need to be a member of either service to see our pages. We post photos and news about your Garden, plus links to interesting stories and resources from the world of gardening and nature. Simply visit us via these links:

Facebook: [facebook.com/FrederictonBotanicGarden](https://www.facebook.com/FrederictonBotanicGarden)

Twitter: [twitter.com/FredBotGarden](https://twitter.com/FredBotGarden)

See you there!

## Talks in the Garden

**Topic: Looking ahead: Green thumbs in New Brunswick under a changing climate**

**Speaker: Michael Stastny**

**Date: Thursday, January 18**

**Time: 7:00 pm**

**Location:** Fredericton Botanic Garden Association Resource Centre, 10 Cameron Court, Fredericton

The last decade has been about 1°C warmer than the historical Fredericton average, and the warming trend is expected to accelerate in the near future. Will our region shift to a milder hardiness zone and should we get excited about a longer growing season? Not so fast! – as our environment continues to change, local gardening might actually get more unpredictable!

*A relative newcomer to the Maritimes, Michael is a forest insect ecologist with the Canadian Forest Service, but comes from a more diverse and well-travelled path of learning about interactions of plant and insect communities, natural history, and gardening.*

**Topic: Making things right: Restoring ecosystems through native seed production**

**Speaker: Holly Abbandonato, PhD**

**Date: Thursday, February 15**

**Time: 7:00 pm**

**Location:** Fredericton Botanic Garden Association Resource Centre, 10 Cameron Court, Fredericton

Humans have had dramatic impacts on landscapes but fortunately there is a growing global movement toward responsible restoration. The production and use of native seeds will play a pivotal role in the coming years to accelerate restoration activities, since we cannot rely solely on wild collections to meet these targets. To be successful in restoring habitats, it is important to consider not only their ecological value, but also their socioeconomic and cultural value since successful ecosystem-based restoration often takes a pluralist view.

The native seed market in much of the world is currently unregulated as native seed policies are either lacking, too restrictive or not nationally enforced, resulting in the sale of uncertified seed in many countries. Thus aspects of seed quality are not always ensured or labelled such as origin, germination or purity. A lack of quality control can have negative implications and can jeopardize restoration and genetic conservation efforts. This presentation will discuss the current restoration status, environmental policy, and how we can improve native seed quality, research, and development taking an international and intersectoral perspective.

*Holly is a holistic plant ecologist who has previously studied habitat restoration and climate change during her graduate degrees in Norway and Italy. She completed her undergraduate degrees at the University of New Brunswick, and she currently lives in Fredericton. In her spare time, she enjoys cooking, gardening, photography, travelling, and pet advocacy writing and volunteering.*



**Topic: Harnessing the public to track spruce budworm outbreaks: What citizen science can teach us about insects and each other**

**Speaker: Dr. Rob Johns**

**Date: Thursday, March 15**

**Time: 7:00 pm**

**Location:** Fredericton Botanic Garden Association Resource Centre, 10 Cameron Court, Fredericton

Each year our world becomes increasingly connected through advances in the internet and social media. These advances have allowed many scientists to escape the marble-gilded halls of academia to more fully engage with the public through "Citizen Science". He will discuss this approach, how it helps researchers advance science, and how it can contribute to increased public trust and knowledge-ability on some of the most pressing (and controversial) scientific issues of our time. As part of this talk, he will also discuss our ongoing "Budworm Tracker" project as an example of citizen science in action.

*Dr. Rob Johns is a research scientist at the Canadian Forest Service and is generally interested in understanding what factors shape forest insect outbreaks and how this knowledge can be used to better manage their impact. He has a dual interest in science communication and how scientists can better convey science to the public and politicians alike; in a world of "fake news" and "science skeptics", scientists have an important role to play in fostering informed public debates on controversial resource and conservation issues.*

**Topic: The Monarch: An Amazing Butterfly Story**

**Speaker: Jim Wilson**

**Date: Thursday, April 19**

**Time: 7:00 pm**

**Location:** Fredericton Botanic Garden Association Resource Centre, 10 Cameron Court, Fredericton

The Monarch butterfly is the only insect in the world known to make an annual migration of more than 4,000 kilometers – from southern Canada to a tiny wintering area high in the mountains of central Mexico. But the Monarchs are in big trouble; their numbers have declined precipitously in recent years. This talk includes wonderful photographs that help us understand the Monarch's life cycle and challenges, and explain how each of us can do our part to save this beautiful and amazing insect.

*Jim Wilson is a retired Professional Accountant (CPA, CMA) and one of the most respected birders and naturalists in New Brunswick. Jim has had the privilege of serving in a number of related roles as a volunteer, including President of the Saint John Naturalists' Club and Chair of the New Brunswick Wildlife Trust Fund. He prepares weekly comments on birds for the Sightings page of the Telegraph-Journal newspaper, and contributes from time to time to CBC Radio, discussing nature-related topics.*

**Topic: Gardening for Taste, Health and Beauty**

**Speaker: Joe Ruggeri**

**Date: Thursday, May 17**

**Time: 7:00 pm**

**Location:** Fredericton Botanic Garden Association Resource Centre, 10 Cameron Court, Fredericton

*Joe Ruggeri is a retired University of New Brunswick economics professor who loves gardening. Joe and his son Franco are working to develop a small botanic/permaculture garden on 2.5 acres of land containing five sections: vegetables, fruiting bushes, fruiting trees, flowers and ornamental bushes, and arboretum. Joe will share his experience with various methods of cultivation of vegetables and ways of optimizing their use, and will also focus on the cultivation, health benefits, and uses of a large variety of fruiting shrubs. Videos of Joe's garden and some of Joe's new songs can be found on his you tube site called han gardener; sometimes these songs start as new tunes he whistles while exploring and enjoying his garden. Joe's videos can be accessed at:*

<https://www.youtube.com/playlist?list=UUquGg4yN9YDkAb9chPx3CLQ>

## An honour for FBGA President Jim Goltz

The FBGA is delighted to congratulate its President, Dr. Jim Goltz, who is the 2017 winner of the Lieutenant-Governor's Award for Excellence in Land Conservation.

The Award is administered by the Nature Trust of New Brunswick, and recognizes an organization or an individual for extraordinary contributions to the protection of natural heritage, through land conservation, in New Brunswick. If you know Jim – and many of our members will know him well – you'll know that he is a tireless enthusiast for nature and land in our province. He has been involved for over 30 years with various conservation initiatives in New Brunswick, including the NB Nature Trust, the New Brunswick Protected Natural Areas Coalition, and programs of the World Wildlife Fund. He is an accomplished naturalist and a passionate advocate for nature.

When asked which of his major accomplishments makes him most proud, Jim points to the conservation of Acadian Hardwood Forest remnants in the St. John River Valley. Many rare plants occur in the Acadian Hardwood at the northeastern limit of their North American ranges. Along with Hal Hinds, Jim worked to raise the profile of this area as a conservation priority. This led to protection through collaborative work of the Meduxnekeag River Association, the Nature Trust of New Brunswick, the Nature Conservancy of New Brunswick and their many supporters. Jim says that it's very rewarding to see his dreams turned into reality – through his own hard work and that of many others.

Jim's award was presented November 30 by The Honourable Jocelyne Roy Vienneau, New Brunswick's Lieutenant Governor (who is also the Patron of the Fredericton Botanic Garden). In her words, "Dr. Jim Goltz has been leader in environmental stewardship for decades.



He believes in conservation. He lives it. He is a role model for New Brunswickers – and Canadians – on the importance of caring for our province – and our planet. We have so much to learn from you”.

We are fortunate to have Jim as a member of our Garden and as President of our Board; all of us, in Mme. Vienneau’s words, have so much to learn from him. The FBGA joins with great enthusiasm in the celebration of Jim’s award.

## Science in the Garden

### Gardens, beachheads, and invasions

By Steve Heard (Professor, Biology, UNB).



Photo: Japanese knotweed © gerald\_at\_volp\_dot\_com, CC BY-SA 3.0.

A visit to a garden is a chance to see beautiful plants, and often, unfamiliar ones. For centuries, gardeners have scoured the world for beauty that evolved in far-off lands. Many of our most cherished garden plants, then, originated somewhere else – and being the first to grow something new and strange has always been something to boast of. The quest for new accessions is a fundamental part of gardening, and it’s fun and educational, but over the years it’s had its dark side, too. That’s because gardening has been an important pathway for the arrival of invasive alien plants (and other creatures).

“Invasive” plants are those that are not native to an area, but that establish there, spread, and cause ecological or economic harm. There are thousands of such plant invasions worldwide, and they cost human societies billions of dollars every year - between the cost of efforts to control their spread and the cost of damage done by species we don’t or can’t control. Among invasive plants that have come to eastern Canada via gardens are oriental bitter-sweet (*Celastrus orbiculatus*), Japanese knotweed (*Fallopia*

*japonica*), Himalayan balsam (*Impatiens glandulifera*), and many others.

It’s no coincidence that gardens are a pathway for plant invasions. Ecologists have studied, with some sense of urgency, the dynamics of these invasions – hoping to understand which plant species, and which routes of spread, are the most worrisome threats. This work points to two complementary reasons that gardens, unfortunately, favour the establishment and spread of invasives.

First, a set of plant characters turns out to be associated with successful establishment, and then spread, of a species outside its native area. Several of these traits are the very things that might endear a species to gardeners. These include fast growth (fills its spot quickly!), early and copious reproduction (lots of flowers!), tolerance of a wide range of ecological conditions (easy to grow!), lack of natural enemies (no pests!), and competitive superiority over other plants (doesn’t need weeding!). The advertising copy writes itself, doesn’t it? The very species gardeners might like to grow are the ones ecologists might worry about as invasives.

Second, we’ve learned that even the worst invaders often have trouble establishing their first beachhead. Many non-native plants are introduced, only to persist briefly in a small population before dwindling to local extinction. This may be because the few individuals present aren’t found by pollinators, or don’t have neighbours to share pollen with; or it may just be that small populations are always vulnerable to random events, to the vicissitudes of storms and freezes and other chance disturbances. Many invasive species, in fact, are introduced over and over again before they finally overcome the disadvantages of their initial rarity and begin to spread. But a gardener, of course, will work assiduously to buffer their plantings from these disadvantages. In tending the garden, in working actively to maintain the few individuals of a prized exotic, in weeding and fertilizing, in fencing from deer and soap-spraying free of aphids; in all these things, the gardener provides a sheltered toehold for a not-quite-yet-established invasive species. This is why gardens are beachheads.

What, as gardeners, might we do about this? Most importantly, every gardener should know what they’re planting and should think twice about their choices. Japanese knotweed might give you an instant patch of lush greenery – but it’s nearly impossible to dislodge when you tire of it, and it spreads beyond your garden to damage native habitats. You won’t find it in our Garden, and we advise against planting it in yours. But that’s just an example. So if you’re considering adding a new plant to your garden, it’s worth screening for invasiveness. Don’t assume that a plant you can buy at a nursery or through the mail is OK, or that a plant in a friend’s garden will be problem-free in yours. Instead, do some research: an internet search for (name of plant) + “invasive” will go a long way, as will questions asked by a local gardening expert or botanist (our Garden



can connect you with both). Knowing what you plant is part of being a responsible gardener – and it can be part of the pleasure of gardening too.

Here's an excellent brochure on some of New Brunswick's invasives to watch for:  
[peiinvasives.ca/wp-content/uploads/2016/03/NB-field-](http://peiinvasives.ca/wp-content/uploads/2016/03/NB-field-)

## Odell Park and Killarney Park public consultations

Members of the Fredericton Botanic Garden Association are very interested in the development of a management plan for Odell Park and Killarney Park, and many have participated in public consultations this past summer and fall. The final draft Improvement Plan document is being prepared by consultants, and is scheduled to go to City Council for approval in February. Information will be provided in the next newsletter.

## Membership

Visit the website [frederictonbotanicgarden.com](http://frederictonbotanicgarden.com) and find the calendar of upcoming events. Also the option to buy a gift membership has been added under the Membership tab.

## Spring Fair and Plant Sale

The Committee wishes to announce there will again be over 500 healthy herb plants available at this year's event on Sunday May 27, 2018

## Board Development

### Hello Fredericton Botanic Garden Association Members.

Have you been wanting to become more involved in your Association? We are currently looking for some members to fill a few vacancies. Perhaps your experience would make you a good fit to join the Association's board of directors. If you have the time (approximately one board meeting per month and participation in several events throughout the year) and some expertise that you feel might be an asset to the organization, please contact Wendy Bourque (450-3904) or Graham Allen at the FBGA office (452-9269). We really hope you will consider volunteering some of your time to contribute to this long standing community organization.



Join the Fredericton Botanic Garden group page on Facebook to see announcements of events, pictures of the Garden and watch for our upcoming contest.

The Fredericton Botanic Garden Association Newsletter is published four times a year by the Fredericton Botanic Garden Association, Inc. The FBGA is a registered charitable organization for tax purposes.

The objectives of the FBGA are to guide the establishment of the Fredericton Botanic Garden and to foster an awareness and appreciation of plants.

To obtain information on membership and to become involved in FBGA activities please contact us: **506-452-9269 PO Box 57, Stn. A, Fredericton, NB E3B 4Y2 or [fbga@nb.aibn.com](mailto:fbga@nb.aibn.com)**  
**Web: [www.frederictonbotanicgarden.com](http://www.frederictonbotanicgarden.com)**

### Fredericton Botanic Garden Association Board of Directors

**President - Jim Goltz Treasurer - Stephen Heard**  
**Secretary - Louis-Philippe Albert**  
 Holly Abbandonato Wendy Bourque  
 Rebecca Matchett Marg Routledge  
 Michael Stastny Owen Washburn John Welling



## Seedy Saturday

**Saturday March 24, 1:00 pm**  
 Fredericton Botanic Garden  
 Resource Center

10 Cameron Court off Hanwell

Members: \$2.00 Non-members \$4.00

