Niagara Rhodo

Newsletter of the Niagara Region Chapter
Rhododendron Society of Eastern Canada,
District 12, American Rhododendron Society

February 2021 Edition

Our Purpose:
We are a non-profit organization whose aim is to promote, encourage and support interest in the genus *rhododendron.* Our goal is to encourage gardeners to grow and appreciate these plants, by providing educational meetings with knowledgeable speakers, access to topical publications and hosting joint meetings with other chapters.

In this Edition:

A Message from the President

As the days grow longer and we start to look forward to Spring, we take time to reflect on our gardens, and assess how they are progressing. We start to plan for the coming year, and investigate new plants and garden design. Our upcoming Chapter Plant Sale is sure to catch your attention as you plan.

With the current emphasis on climate change in the media, we are adding a new lens to assess our gardens. As gardeners, we are "down to earth" folk, and are noticing how aspects of climate change are affecting our micro world. For example, deer ticks are now a problem in the Carolinian forest area of Lake Erie because they carry lyme disease. There are many more examples.

The awareness of climate change evidence means that we cannot ignore this issue even though it creates new challenges. It is imperative that we share our knowledge with other gardeners. Hence, Zoom is taking off as a communication tool - Chapter activity across the ARS has never been livelier where speaker presentations are broadly shared. On March 21st we're looking forward to a live and lively Zoom presentation by Dr. Juliana Medeiros. Joining us will be members from the Atlantic Region and the Great Lakes Chapters!

Your Board continues to attract innovative programs/good speakers, and strives to remain at the leading edge in the ARS.

Sondra Meis, President

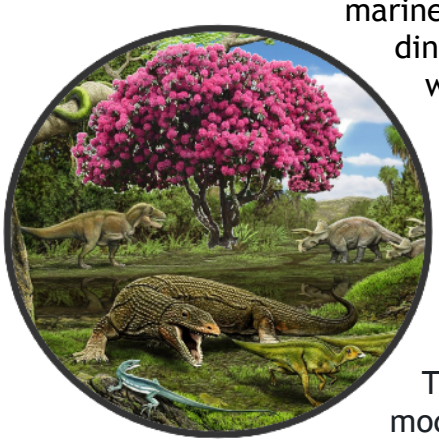
Speaker Meeting - on Zoom
Sunday 2 p.m. March 21, 2021

Juliana S. Medeiros, PhD

Dr. Medeiros is Plant Biologist at Holden Forests & Gardens, Kirtland, Ohio. Her lab http://medeiroslab.com/ focuses on Rhododendron as a model system to understand how plant traits evolve in response to the environment. Founder and co-Chair of the ARS Rhododendron Research Network, Juliana is also Chair of the Research Committee of the ARS. She holds appointments at Kent State and Case Western Reserve Universities.

Looking back to the past to secure the future of Rhododendron in a changing world

Around 66 million years ago at the end of the Cretaceous, Earth was impacted by the 6-mile-wide Chicxulub asteroid that crashed into the Yucatan Peninsula, causing a mass extinction of many marine and terrestrial species, and ultimately disappearance of the dinosaurs.. However, after the world recovered from the asteroid, warm, humid Mesozoic conditions continued into the Cenozoic, including a period of little temperature difference between the equator and the poles. Earlier in the mid-Cretaceous, 110 million years ago, angiosperms (flowering plants), order *Ericales*, which includes the rhododendron family *Ericaceae,* first appeared and rapidly diversified, initially in the Neotropics and Indo-Malaysia, and later into the Arctic and temperate regions (Nelson).



The mid-Cenozoic also marked a transition between tropical and modern ecosystems (Nelson). This began when the India subcontinent plowed into Southeast Asia about 50 million years ago, and uplift of the Tibetan Plateau along with the Himalayan mountains and the Hengduan mountains in SW China began. Several pulses of mountain building and erosion and weathering enhanced by intensification of the monsoons (Ding et al), initiated a slow cooling of world climate up to the present, as atmospheric carbon dioxide levels fell and glaciers formed at the poles. There is even speculation that a massive Azolla bloom (a fresh-water fern) in the Arctic contributed to an even faster rate of reduction in global atmospheric carbon dioxide. As the climate cooled and the Himalayas were forming, accelerated rates of evolution led to high speciation in alpine flora, creating the oldest, richest biodiversity hot spot on Earth today in the Hengduan mountains (Ding et al). Rhododendrons thrived too as they were forced to adapt to rapidly changing diverse alpine habitats. In the ensuing Pleistocene ice ages, literally hundreds of new species emerged as rhythmic glacial-interglacial cycles honed specialized adaptations to different local habitats.

Today, however, human activities are changing the climate at an unprecedented pace, and that glacial world where Rhododendron diversity evolved is rapidly disappearing. This talk will take you back in geologic time to consider the role of climate change in the evolution of Rhododendron, provide a survey of climate threats they currently face, and show how our research on physiological climate tolerance and the legacy of ancient adaptations can help us secure the future of Rhododendron in a changing world.

New Zealand's Horticultural Gem

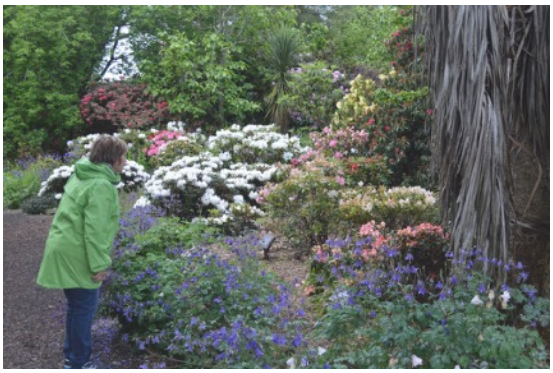
Situated amongst South Island's misty hills, New Zealand's Dunedin Botanical Garden is a spectacular site to visit. More than 150 yrs. ago it became the country's first botanical garden and today its award winning collections include roses, herbaceous & perennial borders, a rock garden, NZ native plants and the Rhododendron Dell which houses more than 3000 rhododendrons. As long as any of us visitors can remember, entry is free of charge!

If the visitor arrives in spring (October thru November), roses, lilies and peonies are beginning their display while perennials such as the Himalayan Blue Poppy (Meconopsis) and the red hot pokers (Kniphofia) complement each other in colours of blue and yellow/orange. The noteworthy Rock Garden clinging to the sheer side of a cliff boasts an extensive collection of plants and switchbacks / seating areas at alternative spaces allow the visitor to stop and admire the view. Wildflowers, some familiar, others specific to the region, are limited to colours of yellow and white but do provide interest in their architectural design.

Meconopsis. Photo: Todd Boland

Rock Garden. Photo: Todd Boland

It is the Rhododendron Dell that is the target flower show. The temperate climate, the acidic soils of loess and basalt produce lush plants at the top of their game. NZ plants grow in areas ranging from Zones 9 -10 in the North to Zones 8 -7 in the South. These growing conditions are so optimal that certain varieties of rhododendrons continue blooming later into the year.



Liz in the 'yak' collection. Photo: Chris Malicki

Entering the 4-hectare Rhododendron Dell is a significantly unique experience for the rhododendron enthusiast. 128 species, 223 hybrids, and 518 unnamed hybrids encompass the collection. Plants are arranged in a specific design plan – species are located in subsection groups, while other rhododendrons are organized into groupings of companion plantings. Rhododendrons, kalmias, pieris, enkianthus, columbines, primulas, silver ferns, and cordylines showcase a very unique New Zealand landscape. In fact, it is very easy to determine that all plants exhibit the 'amazing to speechless' characteristics ... from the gigantic to the miniature regarding seed pods, trusses, blooms, leaves, trunks...from the heights of the 30 m trunks to the 10 cm

Size comparison. Photo: Chris Malicki

dwarves ...from the varied leaf hues of greens, silvers, browns to the limitless bloom colours of whites, creams, yellows, lavenders, pinks, corals, fuchsias, reds, scarlets.

Because education is an important mandate of the Garden, labels name the plant or species, country of origin and the parentage as well as interesting characteristics exhibited by some of the flora. However a problem is encountered when identifiers are lost or hidden from sight by the lush encroaching greenery and one is left wondering with questions unanswered.

The following lists give the tiniest sample (some with photos) of rhododendrons present here.

Species:

R. megacalyx: unusual, large, flowers

R. basilicum

R. arboreum: 3 varieties in different colours

R. sidereum

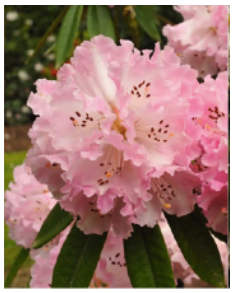
R. griffithianum: pure white

R. lindleyi ssp. Maddenii (epiphytes)

R. roxieanum – narrow leaf

R. campylogynum (one of few Lepidotes)

R. argyrophyllum: also found in NFLD.
Photo: Todd Boland



R. arboreum, pink form.
Photo: Todd Boland

Hybrids - some are familiar to us

Capistrano

Crest

Blue Peter

r. Chelsea. Photo: Todd Boland

r. Blurettia (Blue Peter x yak).
Photo: Todd Boland

r. Illam Cream. Photo: Chris Malicki

r. Kiwi Magic. The 'IT' hybrid in numerous NZ gardens. From: opendirect.nz

r. Wynn R. Aner.
Photo: Todd Boland

NZ Hybrids

r. Bonnie Bell. Photo: Todd Boland

r. City of Dunedin. A yak hybrid, lining both sides of the entrance avenue.) Photo: Todd Boland

The delicately perfumed air hints at the presence of the azaleas which are exhibited in sunlit areas contained by open lawns where visitors can approach for a proper smell and touch. Magnificent yellow gold, orange, coral, white bushes are the descendants of the Exbury / Knap Hill (Lionel de Rothschild, England) and the Illam (Edgar Stead, Christchurch) strains dating back to the 1930's. Noteworthy are the series of double azaleas and huge trusses (as big as a human head) bred by NZ breeder, Dennis Hughes. Decades ago plant aficionados would bring in hybrids from other countries but today NZ has its own hybrid Registry and importing plants is strictly prohibited.

If the rhododendron enthusiast is willing to sacrifice the time and expense of a long trip, then a visit to the Dunedin Botanical Garden is an absolute MUST on the 'bucket list of need to see'.

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A Dunedin Retrospective
1950's and 2005

In 1950 my family arrived in Dunedin, NZ from war torn Europe. In this favourable climate my parents rediscovered their passion for horticulture and created the first of many exquisite gardens, a hobby they pursued vigorously after we moved to Atlantic Canada in 1956.


One of the main walkways

Rhododendrons, which thrived like weeds on the roadside and as botanical marvels in the Dunedin Botanical Garden, were the object of many visits to that Garden. My father was an avid photographer - these photos were taken in the early 1950's and no match to the exquisite photographic representations of today. Still, they are a record of Joe Brueckner's growing attraction to Rhododendron and the foundation of his life's work. Here I share a few from his considerable photographic record during those years. The collection includes many of the exotic
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The Rose Garden, rhododendrons in background

The Azaleas

and unusual native NZ plants, as well as many varieties familiar to all of us.

He was especially taken by the NZ Rata ("Metrosideros Umbellata," the Southern Rata), endemic to NZ. Masses of red blossoms on trees which can eclipse 15 meters in height. I was placed in the picture to give perspective on the size of the tree.

In 2005 I had the good fortune to travel to NZ and revisit friends and places. Naturally I stopped by the Dunedin Botanical Gardens. It was November, and many rhododendrons were past their flowering. Still, it was a walk down memory lane. The rock garden, seen here from above was as Todd Boland described in his talk. Its upper reaches are a place of solitude, expanse, and beauty. The Winter Garden Glass House is seen in the distance.

You may remember from Todd's presentation the carefully manicured edges of the lawns; you may also have noticed that this practice has continued unchanged since the 1950's!

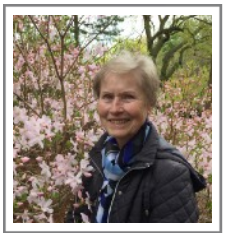
We thank Todd Boland for his splendid photographs and engaging January 24th presentation to the Niagara Region Chapter, on the Dunedin Botanical Garden. We also appreciate that his talk gave us the opportunity to re-visit this well loved space over the last few decades. A Sunday afternoon well spent strolling down memory lane!

Contributors:

Todd Boland, Research Horticulturalist at Memorial University of Newfoundland Botanical Garden
The Dunedin Botanical Garden of New Zealand, 2019 visit as invited speaker

Liz Malicki, Rhododendron Enthusiast Extraordinaire
New Zealand's Horticultural Gem

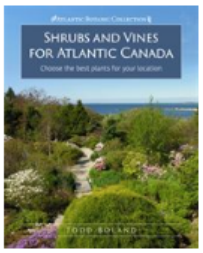
2015 visit to Australia and New Zealand: A Canadian's Experience



Christina Woodward, Interim Editor, Niagara Rhodo
A Dunedin Retrospective, 1955, 2005

Books of Interest

Todd Boland has authored a number of acclaimed books on the trees, flora and plants of Newfoundland and the Atlantic Provinces. His *Wildflowers and Ferns of Newfoundland and Labrador* (2017) received a review from an American source which hailed this guide as "the long awaited answer to the need for a comprehensive overview of Newfoundland flora." Todd's books would not be complete without his exceptional photography! Two of his more recent publications include:

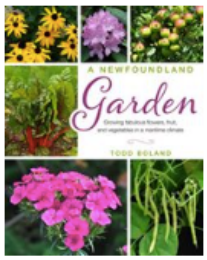


SHRUBS AND VINES FOR ATLANTIC CANADA: CHOOSE THE BEST PLANTS FOR YOUR LOCATION
by **Boland Todd**

Paperback | This title releases March 15, 2021

$29.95

✓ Pre-order online ⊘ Not yet available in stores



A NEWFOUNDLAND GARDEN: GROWING FABULOUS FLOWERS, FRUIT, AND VEGETABLES IN A MARITIME CLIMATE
by **Todd Boland**

Paperback | This title releases March 15, 2021

$21.95

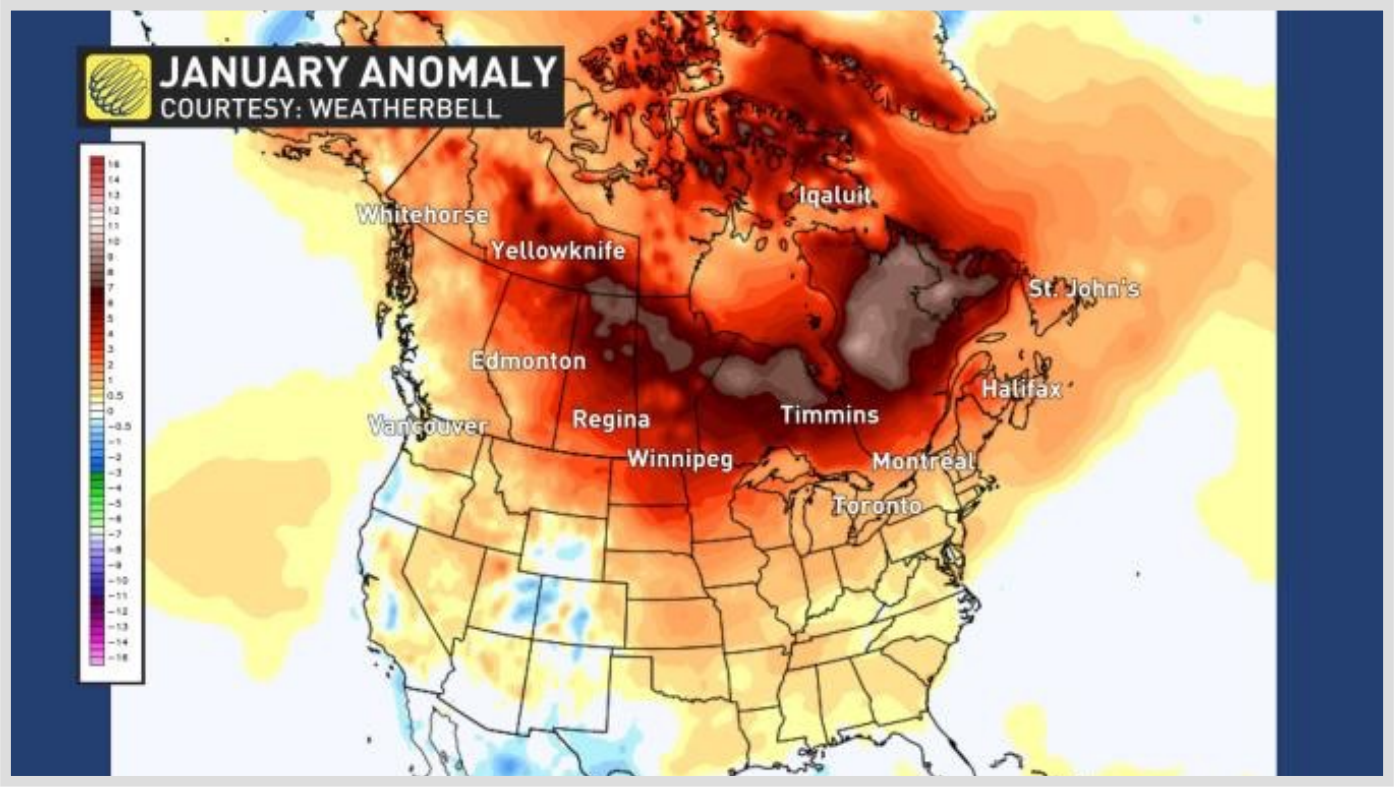
✓ Pre-order online ⊘ Not yet available in stores

Warmer Winters = Warmer Summers?

As we continue our annual winter hibernation here in Ontario we have more time to look into our interests. The stress of a Global pandemic means that we - as many of us often do - are unable to travel to warmer climes to escape the snow!

Recently, an image was shared on the weather network's website showing that our winter has been quite a bit warmer than 'normal'. It's probably worth noting that what we think is usual for our winters is really just the slow increase in winter temperatures due to climate change. We don't argue about the changing climate any more. We know it is happening, and we know that it is our fault.

We can, and still do, get the extreme cold, of course; my garden hit -24.5C in early February… which really is not that cold for a USDA zone 4. The reason for this brief note is to highlight just how absurd the temperature abnormality was for the month of January 2021.



Weatherbell Analytics LLC. https://www.weatherbell.com

Nearly all of our continent experienced anomalous warmth for the Month of January - temperature anomaly is how much the recorded average temperature varies from the long term average - this can be either up (warmer) or down (cooler). Those of us in Southern Ontario had a temperature anomaly of 1 or 2 degrees Celsius warmer than the long term average. However, if you look at the map you can see that Northern Ontario, Northern Quebec, Labrador, as well as parts of Northern Manitoba and Saskatchewan, had temperature anomalies of 8 to 11C ABOVE normal. That means that the average temperature for the entire month was -10C above "normal". We haven't heard

much about this. It seems that because it is winter and it is cold anyway - indeed, the average temperature of this whole area is still cold - it is not newsworthy.

To understand just how remarkable this is, imagine a 10C anomaly in Toronto for a summer month. The average temperature for the Month of July in Toronto is 23C. That's more or less the middle ground between the average low (18C) and the average high (27C). If Toronto were to have a 10C anomaly in July the average temperature would be 33C. That would be like an average day having a low of 28C and a high of 37C.

Clearly those temperatures would trigger heat warnings. For Rhododendron growers the sustained high overnight temperatures would be devastating to all but the most heat tolerant of our plants!

Paul D.J. Chafe, PhD
York University, Department of Biology

Rhododendron grower and hybridizer
Parham, Ontario

Here's a teaser from this year's Plant Sale. Order form will be shared shortly.

This is the Readers' Page.

We love your photographs. Let us post them here. Contact canadacaw@yahoo.ca

The promise of spring.

Finally got one to flower!

Trying my hand at rooting winter cuttings!

Would love to show your photos!

A Word of Caution

By becoming a successful grower, the reader will be exposed to a contagion for which there is no cure. Once infected with an appreciation of rhododendrons and azaleas most gardeners spend a lifetime collecting the most beautiful of all plants.

H. Edward Reiley