

Newsletter

Volume 33:10 December 2022

Message from the President

Another year nearly behind us. Although the two-faced god Janus represents January, and the portal between old and new, I find by the time we have entered the new year I am no longer looking back. Except perhaps to wonder where on earth I filed the tax receipts.

Winter is upon us, and the bare stems on the trees and shrubs are rimed with frost in the morning. The herbaceous plants have slumped in shades of tan and brown, and the birds are swarming any berry-laden branches.



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CVRS December Meeting

Wednesday December 7, 2022 6:00 pm

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Banner Photo:

Snow Sculptures in a

Garden Landscape

Merry Christmas!

Given most gardeners seem to have a plethora of nursery stock waiting to go into the ground, now might be a good time to see to their welfare. Many hardy plants cease to be when their roots are exposed via the pots to the frigid temperatures. I usually do this in the dark on the night before the big freeze, having blithely ignored the weather reports and warnings.

Sometimes just putting them undercover for the really cold nights is enough, or in a cold garage, or even a tarp or blanket thrown over, once even with a family quilt -- surely not what it was intended for.

The snow is now weighing down the branches and should be carefully removed, especially in this cold where it tends to freeze to the branches, which then snap off as you flail around with a broom trying to remove the snow.

In the meantime, I shall sit in front of the fire, peruse the latest seed catalogues, and dream of greater gardens to be.

Barrie Agar



CVRS CHRISTMAS PARTY

Wednesday, December 7, 2022 6:00 pm

ST JOHN'S ANGLICAN CHURCH HALL

486 Jubilee Street, Duncan, BC

The venue for the Christmas Party was chosen to allow generous distancing between friends while still enjoying an indoor gathering.

DINNER:

- Potluck (Favourite dish to share)
- Warming oven available

What to Bring:

- Food to share and Items for the food hamper
- Your own plates and cutlery
- · Gift for the gift exchange
- Tall Tales and Photos (If you wish)
- 4 quarters to vote for favourite photos

ACTIVITIES:

Tall Tales Contest:

- Write a Tale
- Your tale must include the following Rhododendron Names: Mary's Favourite, Tally Ho, Blue Shine Girl, Purple Lace, Cherry Brandy

Photo Contest:

- Subject Rhododendrons
- Maximum 3; 8x10 photos, matted or not
- Four quarters for voting



DRINKS

Provided by CVRS Executive



Christmas Hamper Donations

In the Spirit of the Season, we will be collecting items for a Christmas Food Hamper. As in most Christmas Food Hamper Drives, money donations are also greatly appreciated to build well-balanced hampers of food most needed for those less fortunate.



GIFT EXCHANGE

- Please bring an unwrapped gift
- suggested maximum cost \$20

RSVP:

Numbers are needed for Planning Purposes
Please contact: **Mary Pike**

tyrrell.me@gmail.com

cowichanvalleyrhododendron@gmail.com

CHRISTMAS PARTY DETAILS

Some things stay the same:

FOOD AND GOODIES:

Buffet-style Potluck Table
Bring your favourite Sweet or Savoury dish to share and delight!
Please bring your own plates and cultlery

DRINKS PROVIDED:

Non-alcoholic punch, Wine, and Soda/ Fruit juice

PHOTO CONTEST:

Bring your best three (3) Rhododendron photos

Hint: Photos look most competitive in 8 x 10 format

Prizes: 1st, 2nd and 3rd most popular photos

Partygoers bring four (4) quarters to place in the
bowls to vote for your favourite photos!



TALL TALE TELLING:

Back by extremely popular demand.

It is a well-known fact that Rhododendron lovers are the best storytellers in the Cowichan Valley

There are very few rules to this contest:

- Your story may be fact or fiction, indeed truth or veracity is discouraged
- You will have 3 4 minutes (approximately) to spin your yarn
 Following are 5 words that must be used at least once in your tale:
 Mary's Favourite, Tally Ho, Blueshine Girl, Purple Lace, Cherry Brandy

The **master storyteller** will be chosen by the most appropriate method (clapping-of-hands volume) and presented with a lovely prize. Start dreaming up your claim to fame.

GIFT TABLE:

Everyone/couple is asked to bring an unwrapped gift for the Gift Exchange

LOCAL FOOD BANK DONATIONS:

As usual, we will be collecting for those less privileged. Cash is ideal as it goes further and is easier to handle.

RSVP:

If you would kindly RSVP Mary Pike at

tyrrell.me@gmail.com or

cowichanvalleyrhododendron@gmail.com we will set a place at the table especially for you.

She may also help you arrange a ride.

We sincerely hope you are able to join us in the fun and festivities!

Letter from the Editor

Merry Christmas Friends!

I wish you the very happiest of the Season's holiday festivities together with quiet peaceful moments of reflection.

Having grown up in a rural Manitoba farming and fishing community at a time, long ago, when trips to tropical beaches were never conceived in the minds of any of our families nor in those of our neighbours, we enjoyed activities that remain deeply precious in my heart when I reflect on the greatest Christmases past.

Almost all of my numerous relatives lived in the local community, just a few miles apart from one another. Indeed, a family would be seen as having moved away if it purchased property 30 minutes down the highway into another municipality. Therefore, we saw each other often during the weeks, and always on Sundays in church.



It might seem odd then that both sides of these large families always planned "family gatherings" for all of the special holidays -- Thanksgiving, Christmas, and Easter. Families took turns hosting these potluck events in their homes; whatever size their houses were, room was always created to accommodate everyone. No apologies were ever sent. Everyone was expected to attend. Effective communication and cooperation occurred well ahead of the festivities and plans were laid so that individual family events did not conflict. For some of us, where our parents had married siblings, this was easier to establish than for other families. In any case, we the children were never aware of any nasty conflicts; compromise was the norm.

Dinners were always served at the kitchen table, usually expanded with unevenly sized pieces of furniture, covered with a generous tablecloth or two, and squeezed between the stove and the cupboards. Feasting happened in shifts. Kids ate first, including the desserts, and then were swiftly dispersed to play unsupervised outdoors, in the basements, or in tiny bedrooms. The men spent their time in the living room exchanging Tall Tales and laughing heartily. The women appeared happy enough preparing food in the kitchen. After the men had eaten, the women sat down and chatted as they ate what was left; no fears in that, there was always plenty for everyone.

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These gatherings were so much fun for us children. We would bundle up and shovel out a rink on a frozen pond or river for a wicked hockey game - all ages welcome. White handme-down figure skates for girls, and any sized skates for the guys -- extra socks added if needed to make them fit. Christmas Day might bring a new pair, or it might not. If there were no ponds or rivers, a snow-packed driveway was perfect for a game of soccer or broomball.



We could always make Snow Angels, play Fox and Goose, climb fences and summersault into deep snow drifts, laughing at cousins who didn't quite manage the full flip and were stuck with their heads in the snow, legs kicking in the air. We dug mazes of tunnels into huge snow drifts with special GIRLS ONLY rooms; the guys did the same, and they usually stocked up on snowballs to defend their forts. Girls had theirs too, of course, and they could throw!

Many, many wonderful memories. I have to admit that I am so very happy to say that we were not the snowbirds who flew South to the beaches. We were far too poor and much too fortunate.

Certainly, the season can bring back sad memories for most of us as well, like saying goodbye to my father at midnight on Christmas Day 1993, before he left us three hours later. Hopefully, though, we are able to reflect most often on those that warm our hearts and soften our spirits. Hopefully too, my reflections spark your own fond memories.

In this issue, please enjoy a very condensed story about Edmund Loder and the spectacular hybrids, the Loderi, that he created. For the full article written by John Hammond, visit six or seven consecutive issues of the North Island Rhododendron Society 2012/13 Newsletters beginning with their September 2012 issue.

Enjoy as well, the article about Bonnie Sands Presentation on Pollinators at the 'Fall into Gardening' Conference in October.

My hope is that meeting the Tall Tales Rhododendrons will inspire you to write a tale to compete in the strenuous Tall Tales Contest at the Christmas Event on December 7^{th} . And speaking of that special event, give yourself time to print those photos for the photo contest. Also save those quarters so that you can vote!

Until we meet then, enjoy the unusual images of snow on deciduous trees that are still green or displaying their Fall colours. They seem to be as confused as we are about the weather!

TALL-TALE RHODODENDRONS

Real Rhododendron Names or Playfully Created?

Have you ever wondered whether the "MUST USE" Rhododendron names listed for the Christmas Tall Tales Contest actually exist? I've had my suspicions when some seem oddly convenient to me, so this year I checked it out for you.



Rhododendron 'Mary's Favorite'

This rhododendron is not commonly seen in gardens.

The trusses are composed of 6-7 flowers that are quite large with a flared corolla, pink with a yellow throat. In bloom, the trusses glow due to the yellow. The rhododendron has attractive foliage and will grow to 5 ft tall and 6 ft wide in 10 years and is hardy to Zone 7. (Photo: Singing Tree Nurseries)



Rhododendron 'Tally Ho'

R. 'Tally Ho' is a cross between two species: *R. griersonianum x R. facetum*

The flowers, about 2 inches across, are orange scarlet with darker spots deep in the throat. They are held in loose trusses of 9-14 flowers.

The foliage is a lovely dark green with light brown felted indumentum.

'Tally Ho' blooms in early summer and therefore needs some protection from sun. It is hardy to -12C. (Photo: Harold Greer)



Rhododendron 'Blueshine Girl'

Pale cream, wine trimmed, bell-shaped flowers with wine-red throat bloom on this rounded plant in May.

Attractive glaucous young foliage, on burgundy stems are a lovely contrast to the flowers.
This is *Rhododendron wardii* hybrid; a tough German hybrid. (Photo: Bohlje Nursery, Germany)



Rhododendron 'Purple Lace'

This rhododendron has a compact bushy growth habit and textured, glossy green foliage. Its magnificent large trusses of very frilly, deep bluish-purple flowers, paling in the center, provide an eye-catching display in the late mid-season. It is happy in well-drained, humus-rich, acidic soil in a garden planting that receives dappled sun, and is hardy to -21C

It is one parent of Fujioka's R. 'Cranberry Lace'



Wouldn't Purple Lace socks look dazzling on George, or Joe or Barrie at the Christmas Party, particularly when they put their feet on the nearby chairs after filling their tummies on the fabulous pot-luck feast that the CVRS members always bring to the table? A theme idea!



Rhododendron cerasinum 'Cherry Brandy'

As it is a rhododendron species, this beautiful plant should be identified as *Rhododendron cerasinum* 'Cherry Brandy'.

Although it has a tropical appearance, it is fully hardy to -15C, and flowers in May/June (Photo: Millais Nursery)

Rhododendron cerasinum





Rhododendron cerasinum was discovered growing in its natural habitats of SE Tibet, Upper Burma, and Assam at elevations of 9000 to 12,500 feet.

The foliage is attractive with oblong or oblanceolate leaves that are medium to dark green, smooth and glossy, with waxy bluish-green undersides.

The corollas it displays are brilliant scarlet, deep crimson, cherry-red, or white with a broad cherry band around the summits, in lax trusses of 3 – 7 pendulous flowers. The blooms are long lasting.

In about 10 years, it will grow to be three feet tall in an upright and rounded form; eventually, it may grow to be 12 feet high.

The great plant hunter, Frank Kingdon-Ward, referred to the pure red form of *R. cerasinum* as 'Coals of Fire' and the picotee type with the white tubes and reddish edge and dark purple nectar pouches as 'Cherry Brandy'.



Rhododendron cerasinum will bloom in May and June, and is amazingly hardy to -15C.

It is wise to plant it where it will receive some frost protection as it is also known to partially bloom in October.

LODERI



Although a number of younger rhododendron enthusiasts may not be familiar with the name Sir Edmund Giles Loder (1849 – 1920) or Leonardslee in Sussex, most would readily recognize the outstanding *Rhododendron* 'Loderi' hybrids for which he is renowned.

In his in-depth article, "The Development of Leonardslee Garden and The Raising of Rhododendron 'Loderi'", John Hammond quotes Lieutenant-Commander John Guille Millais in his expressed admiration for Sir Edmund G. Loder in terms of his expertise and accuracy in his field of interest:

"Whilst I have known Sir Edmund for nearly thirty years and have constantly discussed with him questions relating to zoology and botany, I have never known him to make a single error."

Who among us would not appreciate an accolade such as this? Sir Edmund earned many.

Sir Edmund was a remarkable hybridizer, but he was also an exceptional individual who excelled in many walks of life, and was an inspiration, father-figure and kindly mentor to many of his friends and associates. Sir Edmund, who was naturally shy and reserved, could be somewhat abrupt and "did not suffer fools gladly", once comfortable with those around him became delightful company, brilliant in discussing a wide range of topics.

John Hammond describes a well-rounded and talented man:

Sir Edmund was something of a latter-day Renaissance man, who understood optics and optical instruments, he was an expert photographer, a great zoologist, a practical naturalist, botanist, a great horticulturist and arboriculturist, he understood ballistics, and was a skilled mechanic and armourer. In addition, he was a thoroughly equipped and experienced sportsman, a hard rider to hounds, a good shot with a gun and one of the best with a rifle, and a good fisherman; he had been a fine athlete, and till quite late in life was an energetic dancer. Sir Edmund could draw well and knew more than most people guessed about art, music, gems, jade, carving and curios. He knew the insides of countless books and had great powers of discrimination as to their intrinsic merits; he was a good judge too of the accessories to literature, illustrations, processes and the like.

Sir Edmund Loder grew up on his father's estate, High Beeches, near Crawley in Sussex. Then in 1873, his father, Robert Loder, purchased Whittenbuty estate in Northamptonshire, with its 600 acres of parkland complete with massive deer herds. A year later, at the age of 24, Edmund Loder left England on a one and one-half year trip to see the world. While in India he spent some time in the Neilgherry Hills where he was impressed by the valleys and hillsides of unusual plants. In February 1875, he wrote to his brother Wilfrid about the "curious" Neilgherry [Nilgiri] Hills:



"The Neilgherry Hills are very curious, they rise quite abruptly from the surrounding country on the western side; there is nothing but immense rocky precipices, reminding one more of those of the Yosemite Valley than anything else I have seen. The plateau is not by any means level; sometimes on the bottoms of the valleys it cannot be more than 4,500 ft. above the sea, while some of the highest hills are 8,500 ft. The western Neilgherries are much like the South Downs about doubled in scale, green grassy hills; but the peculiarity is that the bottoms of a great many of the valleys and a large number of the slacks and small corries running up the

hillsides are filled with shrubberies or Sholahs as they are called here. These are of all sizes from hundreds of acres to only an acre. These shrubberies are composed of shrubs the names of which I do not know, but they look much like box, bay, laurestinus, etc., but the principal tree is the rhododendron, which here grows to a very large size—I have measured some whose trunks were 11 ft. in circumference. They are all now in bloom and look very fine."

Nilgiri means Blue Mountains



...because of the blue smoke haze appearance caused by the Kurinji flowers which bloom every 12 years giving the hills a bluish hue. Kurinji, Strobilanthes kunthiana, are known as plietesials; the shrubs grow for many years, then bloom synchronously, and die. The small shrub growing in the Shola forests once covered vast areas with purplish blue blossoms. The Save Kurinji Campaign Council organizes campaigns and programs for conservation of the Kurinji plant and its habitat.

Over 2700 species of flowering plants, 160 species of fern and fern allies, countless types of flowerless plants, mosses, fungi, algae, and lichens are found in the Sholas of the Nilgiris. The Nilgiri Biosphere Reserve, which includes the Nilgiri Hills forms part of the UNESCO World Network of Biosphere Reserves. Efforts are being made to expand this conservation area.

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This spectacular region where Edmund Loder first noted the magnificent stands of rhododendrons has been disturbed or destroyed by extensive tea plantations, extensive commercial planting and harvesting of nonnative eucalyptus and wattle plantations, cattle grazing, as well as easy motor vehicle access. There is also one large, and several smaller hydro-electric impoundments. Interestingly, Scotch broom has become an ecologically damaging invasive species.

When in 1876, Edmund married Marion Hubbard of Leonardslee, Edmund's father set him up on a 300-acre property called Floore. Here, he built a rock garden and established a collection of interesting plants. He became very interested in several branches of horticulture and botany and in particular the family of Cacti. He acquired a vast collection of cacti while on a plant hunting expedition to America with Marion.

Shortly after his marriage, he had also met James H. Mangles, who he referred to as "the Father of the Aucklandii cult" (R. griffithianum). He began to collect the finest species and hybrids of rhododendrons and following the work of Mangles began crossing them. Since some of the Himalayan and Chinese species may take 6 – 15 years before flowering, Edmund Loder was extremely deliberate in his research and selections of plants for his hybridization interest. He collected a large reference library and spent time with foreign nurserymen and curators of Botanical Gardens, travelled extensively, visiting hundreds of gardens.

The relationships that Edmund Loder built with other plants persons were key to his success in developing his gardens. During the Victorian era, plant hybridization was carried out under a veil of secrecy, as the status of a garden was measured by the rarity of the plants it contained, so often current work with crosses would not be discussed, other than the results of crosses made at an earlier stage. In the Guest Book at Floore, Sir Joseph Hooker, a renowned plant hunter, expressed surprise at the of the outstanding collection of plants, and wrote appreciative comments about the charms of Floore.

Certainly, the life of privilege and aristocracy offered many opportunities to those of the country house set. Challenges, however, did present. Early in Edmund's life at Floore, he experienced some heart damage, and for a period of time was so weak that he was confined to a 'Bath' chair; as a result, he also suffered from depression. He recovered only in part, but "led so healthy, so regular and so temperate a life that his moral strength triumphed over this physical weakness until he was far advanced in years." (Hammond)

When his father died suddenly, leaving estate plans for all of his children, Edmund Loderi did not agree with the dispersals of the properties – Floore was left to his brother Sydney – and he determinedly chose to return to the more temperate Sussex of his youth, where he purchased the 240-acre Leonardslee estate from his ageing father-in-law. In leaving Floore in 1889, Edmund having pursued his interest to perfection, presented his entire Cacti collection, 250 species of Cacti and other succulents, to the Royal Botanic Garden in Edinburgh. He re-directed his interests to trees and shrubs.

Leonardslee had suffered prior to the 19<sup>th</sup> century due to activities brought about by the iron industries; forests were cut for charcoal for furnaces and foundries. Years brought recovery to the forests and interesting features remained from the historical land usage. The chain of lakes and ponds in the main valley of Leonardslee were once the old "Hammer Ponds", "ancient reservoirs which ensured the continual running of the water-wheels which drove the batteries of stamps which crushed the iron ore". (Hammond)



Rock Gardens of Leonardslee (Photo: wikipedia.org)

Loder began planting trees and shrubs to create an 80-acre woodland in a sparse valley. The gardens are set in the steep valley containing the chain of seven man-made ponds. In an area sheltered by coniferous trees, he built rock gardens with natural rocks and artificial sandstone. Edmund, an avid plant collector, filled his garden with rare and exotic plant species gathered by plants hunters and brought to Britain.

Loder assumed the work Mangles had begun but decided to add other species to the program. He collected Himalayan and Chinese species, crossing them together, but also crossing them with existing *caucasicum*, *catawbiense* and *arboretum* hybrids.

His friend James H. Mangles had been hybridizing rhododendrons for twenty years. He had been working with *Rhododendron griffithianum* and other species available at that time. When Mangles died, he sent his seedlings to his hybridizing friend, Colonel Fred Godman. Godman sent some cuttings of a particularly fine rhododendron to Loder to graft. He grafted onto *R. ponticum*. From this came what Loderi exhibited, introduced and registered as *Rhododendron* 'Loder's White' in 1911 when it won an Award of Merit. Much discussion has ensued as to the accuracy of the parentage. Although Mangels was meticulous with his hybridization program, his records were never found.

Throughout his life Loder set himself complex problems to solve and high standards; he spared no pains to obtain exceptional specimens of species to use in his hybridization efforts. From amongst several *Rhododendron fortunei* that he had he selected a particularly sweet-scented and large-flowered one. He wasn't pleased with any of his own *Rhododendron griffithianum*, so he searched until he found one in Colonel Fred Godman's cold house who allowed him to collect pollen for his cross. He raised dozens of seedlings with this cross, some of which proved vigorous with leaves a foot long.

Sir Edmund had more success raising seedlings when he used *R. griffithianum* as the male parent than when he reversed the process. The first plant of these seedlings bloomed 6 years later with a "handsome truss with individual flowers 6 inches in diameter". He named it 'White Diamond'.



Many of his plants at Leonardslee were named after family and personalities, whereas those raised at The High Beeches were named after racehorses.

Some of Loder's plants did not produce flowers until after his death; the last of those to bloom, not until 1921, was named *Rhododendron* 'Loderi Sir Edmund'.

William Watson, curator at Royal Botanic Garden Kew, suggested the name 'Loderi' be part of the name.







The best varieties are not necessarily those first named by Sir Edmund, but experience over many years suggests that in Britain the best are 'Loderi King George', which has a truss of 10 to 12 flowers, often 7 inches across; 'Loderi Sir Edmund' with immense pink, waxy flowers that retain pink in veins; 'Loderi White Diamond' with flowers 6 inches in diameter in a handsome truss: 'Loderi Sir Joseph Hooker' which has white flowers with prominent pink veins; 'Loderi Pink Coral' which retains its lighter pink colour, 'Loderi Pink Diamond' with pink flowers quickly fading to greenish white; 'Loderi Game Chick' which opens pink and fades to white but flowers around a week later than the previous; 'Loderi Venus' also opens pink but fades to blush and flowers around another week later. These latter two are useful for extending the flowering season of the grex and may be from the batch which had R. fortunei as the father.

Two later batches of crosses were made with the same parents between 1907 and 1920, but none of these ever replicated the quality of the 1901cross.

Sir Edmund Loder shared some of his unnamed Loderi seedlings with family and friends to grow on their estates. Some of these were of the original 1901 cross and are equal if not better than some of the named clones. Several of the estates did raise and name outstanding clones. 'Loderi Venus' was raised at Exbury, along with another seedling that Lionel de Rothschild named 'Loderi Exbury' but did not register. When the gardens at Exbury were being laid out in 1919, Sir Edmund provided some plant material. John G Millais named and registered one of the Loderi seedlings that arrived at Compton Brow, 'Loderi Maximus'.

All 49 of the named Loderi clones are fragrant. A total of 35 named clones were raised by Sir Edmund Loder.



#### **REGISTERED CLONES:**

Loderi Dairymaid, Loderi Fairyland, Loderi Fairy Queen, Loderi Gamechick, Loderi Georgette, Loderi Helen, Loderi King George, Loderi Patience, Loderi Pink Coral, Loderi Pink Diamond, Loderi Pink Topaz, Loderi Pretty Polly [The High Beeches], Loderi Princess Marina, Loderi Queen Mary, Loderi Sir Edmund, Loderi Sir Joseph Hooker, Loderi Spearmint [The High Beeches], Loderi Superlative [The High Beeches], Loderi Venus, Loderi White Diamond, Loderi White Pearl, Loderi Christopher Loder, Loderi Cream, Loderi Diamond, Loderi May Pink, Loderi Maximus [J.G. Millais], Loderi Millais Pink, Loderi Pearly Queen, Loderi Pink Glamour, Loderi Stag's Head, Loderi Woodland House.

#### **UNREGISTERED CLONES:**

Loderi Buckingham Palace, Loderi Exbury [L de Rothschild], Loderi South Lodge, Loderi Hammerkop [The High Beeches]



Leonardslee Lakes & Gardens has been awarded National Plant Collection status by Plant Heritage, for bringing a globally renowned rhododendron hybrid collection and two Victorian fer collection back to life.

"Grade I listed Leonardslee Lakes & Gardens is home to one of the world's oldest and largest hybrid rhododendrons collection — the original Loderi hybrid rhododendrons — and is often dubbed 'one of the finest woodland gardens in England'

-Jessica Dean-Hill (Photo and Text credit: leonardsleegardens.co.uk)

The original John Hammond article reprinted in segments over months by North Island Rhododendron Society, beginning in September 2012, was the source of information for this article about Sir Edmund Loder and the development of Leonardslee and his exceptional hybrids, the infamous 'Loderi'. The complete article provides fascinating reading.

By Verna Buhler



## Bonnie Zand

Gardening for Bees: Supporting BC's Diverse Native Bees







Glen Jamieson introduced Bonnie Zand at the wellattended *Fall into Gardening Conference* organized by the MARS chapter in Qualicum Beach.

She is the owner of *Bonnie's Bugs IPM*, a private consulting company working with farmers to manage insect pests on Vancouver Island.



Bonnie is currently running the Vancouver Island Pests, Pollinators and Beneficials Project. Bonnie holds a BSc in biology from UVic, is a board member of the Native Bee Society of BC and is part of the recovery implementation group for the endangered Taylor's checkerspot butterfly.

Bonnie is also the BC instructor for the Master Melittologist program. In her spare time, she likes to look for interesting native bees and other insects, raise mason bees, garden with native plants and instill a love of insects in her five-year-old daughter.

#### Why do we care about pollinators?

Pollinators provide an Ecosystem Service.

They are vital because 80% of our plants require help in reproducing.

Three guarters of our fruits and vegetables require animal pollinators.

The value of pollinators is the equivalent of \$3000 per hectare

#### How do plants reward pollinators?

Plants provide the nectar in their flowers, protein rich pollen, floral oils, and for some bees, special rotting aromas.

#### What qualities are characteristic of great pollinators?

Top pollinators have good visual and olfactory abilities

They are good movers and visit a diversity of plants in an area

They are good carriers; fuzzy parts of their bodies collect pollens

Some have specialized tools to catch and carry pollen

Some are specialized to visit the same flowers all the time ensuring they continue to exist They are extremely efficient and dependable; they are drawn like kids to a cookie jar

#### Who are the pollinators?

#### **BEES ARE TOP POLLINATORS**

When most people think of bees they think of honeybees. Honeybees are not native; they are different from native types of bees.

There are 483 different bee species in British Columbia. They are incredibly diverse in size, appearance, and lifestyle, and are vitally important for both food crops and wild plants.

The Okanagan has approximately 400 species of bees; Vancouver Island has about 100 to 150 species of bees

#### What are the lifestyles of bees?

#### **Social Bees**

Honeybees are always colonized. Bumblebees have organized nests with queen bees and worker bees.





However, they also have a solitary period. Queen bees leave to hibernate alone and in Spring become 'single moms'. They wax and incubate alone.

#### **Solitary Bees**

Most bees, 90% of bees, are solitary; they are single moms for their entire lives. A solitary bee collects pollen and nectar into its chosen nest, makes a pollen ball for each egg, encloses the egg and pollen, and then leaves it on its own.



Common solitary bees are mason bees, plasterer bees, digger bees, sweat bees and carpenter bees. They vary in colour from basic black to bright metallic green, blue or red. Some solitary bees superficially resemble wasps.

#### **Parasitic Bees**

There are many species of parasitic bees, but the most well-known is the cuckoo bee.

Parasitic bees do **no** work of their own. They do not carry pollen nor make honey.

A cuckoo bee infiltrates a beehive and lays its eggs inside cells meant to raise the host bees' young. When a cuckoo bee hatches, it will eat the host larvae and the provisions inside the cell.

Some species of cuckoo bees will also kill the host queen and replace her with their own, forcing the whole hive to raise the parasitic young instead of its own family.



#### What are some specialization in bees?

#### **Corbiculate Bees:**

Some bees have pollen baskets to collect nectar and pollen. These pollen basket bees are economically the most important group of bees. There are approximately 890 species of honeybees (*Apis*), bumblebees (*Bombus*), stingless bees (*Meliponini*), and orchid bees (*Euglossini*).

The corbicula, or pollen basket, of female bees is a specialization of the hind tibia, a widening and flattening, for the transport of pollen.



Pollen wetted with saliva, nectar, and sometimes plant oils, is packed into this concave space for transport back to the nest.

#### **Pollen Pants Bees:**

Pollen Pants Bees are bees such as the miner bees, sweat bees, and plasterer bees. Females carry dry, dusted pollen on the feathered scopa along the length of their legs – therefore, *pollen pants*.

The mining bee, *Andrena prunorum*, photo right, sports these bright yellow legs.

(Photo: borderfreebees.com)



#### **Hairy Belly Bees:**

Hairy Belly Bees are small to medium-sized solitary bees in the *Megachilidae* family. Mason bees, leaf cutter bees and resin bees are all part of this category of bees.

These bees appear more rounded or bullet shaped than other bees. The females have a layer of *scopa*, hairs, on the underside of their bellies often bright yellow when carrying pollen, whereas the males do not.



#### Where do the bees nest?

#### **Tunnel Nesting Bees:**

Hairy Belly Bees such as the *mason bees, leaf cutter bees and resin bees,* are often tunnel nesting bees. They 'rent' in tunnel-shaped cavities such as trees, bamboo stakes and plant stalks.

Female bees collect materials from nature to use to build walls in their spaces. Mason bee nests are mud-walled, leaf-cutter bee nests are wall-papered with leaves and bark, and resin bee nests are divided using resin.

#### **Ground Nesting Bees:**

Many, **70%** of bees, nest in the ground. Ground nesting bees are solitary bees that create underground galleries, with queens living individually and raising their own young. The entrances to the nests are small piles or patches of bare soil. Although they do not form hives several females may nest in the same area.

**Ground nesting bees** dig ¼ to ½ inch tunnels in areas of sparse vegetation, in soil that is loose and dry. At the end of these tunnels, they construct chambers which they stock with nectar and pollen for their offspring. In spring the babies dig themselves back out of the soil.

The miner bees, sweat bees, and the plasterer bees are in this category.

Photo right: A solitary ground nesting bee guards the entrance to its nest
Photo credit: PJ Liesch UW Entomology



#### **Hive and Large Cavity Nesting:**

Social colony bees such as honeybees and many bumble bees have social structures with queens, worker bees, and drones. Therefore, they require large cavities within which they raise their young.

Honeybees build complex hives for thousands of bees to grow and for the entire colony to survive the winters. These are generally domesticated; undomesticated honeybees make hives in hollow trees.

Bumblebees also live in social colonies but build their homes in debris piles or burrows. Different bumble bee species will prefer either below ground, surface, or above ground nesting. Bumblebee colonies are generally not larger than a few hundred bees. Only the queen bee survives the winter, and she alone must regenerate an entire colony in spring.

#### THE SIGNIFICANCE

#### **British Columbia Has Approximately 430 Wild Bee Species**

- 31% are unranked, but there are missing species
- 35% are ranked and vulnerable

#### Western Bumble bee:

The Western Bumble bee has declined precipitously just within the last 15 to 20 years because of habitat degradation

Note its slightly reddish neck and its white bum Photo credit: Washington Department of Fish and Wildlife



#### Yellow-Faced Bumble bee:

The Yellow-faced Bumble bee is common on Vancouver Island, and is thriving

Its abdomen is mostly black with a single band of yellow



#### **Common Eastern Bumble bee:**

The Eastern Bumble bee is frequently seen.

It can be identified by its black face, yellow thorax, and first segment of yellow on its otherwise black abdomen



#### MAIN THREATS TO ALL POLLINATORS

**Bonnie Zand makes suggestions for reducing these threats** 

Habitat Loss:

**Create Habitats, Plant Gardens** 

Pesticide Use:

**Don't Use Pesticides** 

Introduced Pests (for Management):

**Purchase Local Mason Bees** 

Climate Change:

Go Native – avoid importing diseases

# CREATE HEALTHY FEEDING AND NESTING HABITATS For Specialized and Native Bees

#### **Provide Food Sources for Specialized Bees**

- Willow provides food for some early season bees
- Goldenrod for some late season bees
- Asters and Gumweed provide for some specialized bees
- Snowberry bee requires snowberry shrubs

#### **Provide Progressive Year-Round Sources of Food**

Hazelnut (early); Camas; Trillium; Woolly Serviceberry; Strawberry;
 Yarrow; Pearly Everlasting; Hard Hats (late)

#### **Provide Native Floral Diversity in Bloom Periods and Shapes:**

- Columbine, Lingonberry, Nodding Onion, Currants (Ribes), Cow Parsnips,
   Mallow, Blue-eyed Mary (Mason bees) Sea Blush
- Instead of weeding and pruning thoroughly, leave some native flowers for bees – Kale, Dandelions, bolting Parsley, Clover in lawns

#### **Leave Natural Habitat Sites and Conditions for Nesting:**

- Leave Stems and Canes for Tunnel Nesting Canes of raspberries and other plant stalks provide nesting sites for carpenter bees
- Leave Bare Soil and "Crumby" Lawns for ground nesting bees
- Provide Rocks and Walls and Debris Pikes as Nesting Cavities
- Leave Leaf Litter, and Logs as Habitat Logs

#### **Build Bee Blocks:**

- Build a series of blocks with a variety of hole sizes for a variety of tunnel nesting bees
- Xerces Society Website for more information: xerces.org

#### \*\*\*POLLINATORS NEED ADVOCACY\*\*\*

Report from notes taken at Bonnie Zand's Presentation at the *Fall into Gardening* Conference Notes were followed up with research to ensure accuracy in recording -- By Verna Buhler

This letter, and an Update, just flew in prior to our December Newsletter posting!

Verna, Editor

**Hello...** Vancouver Island Rhododendron Club Members and Members of Milner Gardens and Woodland!

My name is Kirsten Rispin and I am currently a Vancouver Island University (VIU) student in the Horticulture Technician Foundation Program.

I completed my summer practicum at Milner Gardens and Woodland (Milner Gardens) and continue to work there on weekends this semester. I am a research assistant contributing to the Rhododendron Revival Research (RRR) in partnership with VIU Horticulture, Milner Gardens, and the Nanaimo Rhododendron Society (NRS).

The purpose of this monthly newsletter contribution is to provide a regular update on the progress of the RRR. My role in the research includes monitoring and managing the environmental conditions where the Rhododendron cuttings are propagated and tracking cutting progress through daily record-keeping. A highlight of the research will be attending and presenting our findings at the monthly NRS meetings and sending out monthly updates in the newsletter about our progress in the project over the coming months.

My first update begins on October 20<sup>th</sup>, the same day the Rhododendron cuttings were collected at Milner Gardens. VIU Horticulture students and faculty along with Milner Gardens staff and volunteers began our day with a wonderful talk and tour of the Greig Rhododendron Species Garden (GRSG) hosted by Chris Southwick and John Deniseger. Chris and John shared their wealth of knowledge including the importance of Rhododendron conservation and the diversity of the plants as a species. John and Chris provided our class with a foundational understanding of the importance of these plants. Another takeaway from the cutting collection day is the importance of botanical gardens, such as Milner Gardens, and garden stewards like Geoff Ball, Director of Milner Gardens, and Denise Winter, Horticulture coordinator of Milner Gardens. The teaching and learning purpose of the GRSG was highlighted as it showcased Rhododendrons at local and global scales. This shared learning experience helped shape students' perception of Rhododendrons and their cultural importance.

For the research, Jess Lee, research partner and student, Richard Bernier, our guest master gardener, and Milner volunteer, and I took hardwood cuttings from three hybrids chosen by Denise. The Rhododendrons selected were 'Dr.Stocker', 'Blue Peter', and 'Beauty of Littleworth'. Denise selected these particular Rhododendrons because of the availability of plant material, commercial viability, and public interest.

Later that evening, along with the help of Christine Quist, VIU Horticulture Acting Chair and Research Supervisor,



VIU Horticulture Students (left) Jess Lee and Kurstin Rispin along with Milner Gardens Volunteer Richard Bernier, collecting Rhododendron Cuttings

and Jess, we prepared 96 Rhododendron cuttings and "stuck" them in 2.25" pots. The Rhododendron cuttings are now cozily housed in the misting tent at the Paine Centre, where I will monitor them.



VIU Horticulture students (left) Kurstin Rispin and Jess Lee with Rhododendron cuttings

Thank you all for your contribution to the project and continued learning of VIU Horticulture students; a special thank you to Chris and John for starting off our first day of the project with a hit!

#### Kurstín Ríspin,

Rhododendron Revival Research Project Research Assistant

PS. Updates and more information will be provided at the next NRS meeting on Tuesday, November 10.

# Update received! Verna, Editor

Hello, Rhododendron Club Members from Nanaimo, Cowichan, and Mount Arrowsmith Region, and Members of Milner Gardens and Woodland!



Kurstin Rispin, student research assistant, here from Vancouver Island University's (VIU) Rhododendron Revival Research (RRR) project to update the community on the research progress to date.

Many things have happened since our last update, and I am excited to share them with you here. First, I will begin with a brief recap of what has been done thus far. After our wonderful tour of the Greig Rhododendron Species Garden at Milner Gardens with John Deniseger and Chris Southwick in late October, we collected and stuck 96 cuttings from 3 hybrid rhododendrons; 'Beauty of Littleworth', 'Dr.Stocker', and 'Blue Peter'. Afterward, the research cuttings were placed in a mist tent at the VIU G.R. Paine Horticulture Center.

The environmental conditions for the mist tent were set using the American Rhododendron Society (ARS) guidelines for propagation. The bottom heat in the mist tent temperature is kept set to 21C and the misting system is set to mist at regular intervals during daylight hours to prevent desiccation. During the first two weeks in the mist tent, one challenge that arose was the uneven distribution of water across the newly propagated cuttings.

Eugene Touchette, Landscape Horticulture Professor, and students, worked together to design and rebuild a new misting system in the irrigation course! Now, the sprayers disperse water evenly across the tent, and we can all rest assured that the cuttings are getting the water needed during this propagation stage.

We want to give a special thanks to the NRS and MARS for their contribution towards the installation of the new misting system. And now the monitoring begins!



Monitoring and care of the research cuttings are carried out using the (ARS) propagation and care guidelines that can be found here: <a href="https://www.rhododendron.org/propagation.htm">https://www.rhododendron.org/propagation.htm</a>.



Each week, I use the record-keeping sheet that I created to collect data on the research cuttings. Additionally, I collect environmental data such as temperature and humidity and track cultural requirements, such as watering or pest and disease pressures. The data I collect on the mist tent environment and the cultural activities will be useful when making decisions for this year's cutting growth and in future years. In addition to the weekly record-keeping, I stop in and check on the cuttings between classes during the week to see if the mist system is operating correctly or if there are any changes in crop growth.

Another tool I use for monitoring the health and growth of the research cuttings is using a sample collection of Rhododendron cuttings outside of the research scope for reference. I use the reference Rhododendron cuttings to look at signs of early callousing, overwatering, and other root zone issues. In using this sample collection of cuttings, I can infer what may be happening with the RRR cuttings without disturbing them and suggest cultural and environmental changes to encourage rooting success. Additionally, I am monitoring for any signs of diseased and dropped leaves on the RRR cuttings and will remove any debris to maintain a clean growing environment.

It's nearly been five weeks since the beginning of the RRR. As expected, the foliage on the research cuttings remains largely unchanged since sticking the cuttings two weeks ago. However, I have observed some early signs of leaf curl, yellowing, and mosaic patterns on some of the foliage. An exciting observation in the reference Rhododendrons is early signs of callousing, which is a wound response that indicates new root growth is forming. Moving forward, I will continue to monitor changes in the research cuttings over time and record my observations. This will help build on our understanding of which Rhododendron varieties root successfully using the stem-cutting propagation method.

Thank you for following along with our research and I look forward to updating you at the NRS meeting in the new year!

Kurstín Ríspín

#### 2021 - 2022

#### **Calendar of Events**

Contact CVRS:

cowichanvalleyrhododendron@gmail.com

### Wednesday, December 7, 2022 6:00pm

**CVRS Christmas Event** 

(For details see the Notice on Page 3)

#### Thursday December 1, 2022 7:30pm

Victoria Rhododendron Society Glendale Gardens

#### **Tuesday, December 13, 2022 5:00pm**

North Island Rhododendron Society

Comox United Church Hall

#### Wednesday December 14, 2022 7:30pm

Mt Arrowsmith Rhododendron Society

#### Milner Gardens and Woodland Events:

Closed through November in preparation for Milner Christmas Magic, which will be on | December 2 - 4, 9 - 11 & 16 - 21 - evenings 5:00pm - 8:00pm with viewing until 8:30pm. Check the Milner website for details

#### February 26, 2023

SUE MILLIKEN and KELLY DOBSON ZOOM PRESENTATION

Far Reaches Nursery, Port Townsend, Washington

## NATIONAL AND INTERNATIONAL AMERICAN RHODODENDRON SOCIETY EVENTS

#### 2023:

ARS Fall Western Regional Conference, Florence, Oregon. Dates to be determined.

#### 2023:

ARS Annual Convention, Atlanta, Georgia. Joint ARS/ASA meeting. Dates to be determined.



Rhododendron 'Beauty of Littleworth'

#### **USEFUL LINKS**

**Cowichan Rhododendron Society:** 

cowichanrhodos.ca/

Victoria Rhododendron Society:

victoriarhodo.ca/index.html

**Mount Arrowsmith Rhododendron Society:** 

marsrhodos.ca/

North Island Rhododendron Society:

nirsrhodos.ca/ws/

The American Rhododendron Society:

rhododendron.org/

Nanaimo Rhododendron Society:

nanaimorhodos.ca

**Rhododendron Species Botanical Garden:** 

rhodygarden.org

Nanoose Garden Club:

nanoosegardenclub.ca/

Linda Gilkeson:

lindagilkeson.ca/

Vancouver Island Rock and Garden

Society:

virags.com

**Linda Chalker-Scott:** 

https://puyallup.wsu.edu/lcs/

**Steve Henning:** 

rhodyman.net

Rhododendron, Camellia, Magnolia

https://www.rhodogroup-rhs.org/





Cowichan Valley Rhododendron Society

A Chapter of the American Rhododendron Society P.O. Box 904 Duncan, British Columbia V9L 3Y2

http://cowichanrhodos.ca

#### 2022-2023 Executive

**President: Barrie Agar** 

**Vice-President: Dorothy Kennedy** 

Treasurer: Diane Allen Secretary: Mary Pike

Director-at-Large: Wendy Willson
Director-at-Large: Candice Feeney
Director-at-Large: Sandy Campbell

**Director-at-Large: Ali Morris** 

**Membership Chairperson: David Annis** 

#### Convenors

Sunshine: Vacant

Tea: Judeen Hendrickson

Raffle: Hilda Gerrits

Program Planning: The ExecutiveTeam

Fundraising: The Executive Team CVRS Garden Tours: Candice Feeney

CVRS Bus Tours: TBA Library: Verna Buhler Newsletter: Verna Buhler