# CVIOS NEWSLETTER
# CENTRAL VANCOUVER ISLAND ORCHID SOCIETY

**September 2018**

*CVIOS Meeting are held September to June on a Saturday at the Harewood Activity Center, 195 Fourth St, Nanaimo. Doors open at 11:00 with a brief business meeting starting at 12pm. Following is a display of plants brought in by members, a coffee break, prize draw and a featured presentation or demonstration. There is a sales table where orchid supplies and plants brought in by members can be purchased*

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**CVIOS EXECUTIVE 2018/19**
**President**: Don Miklic
**Past President**: Laurie Forbes
**Vice President**: Dora Glover
**Treasurer**: Darlene Rathwell
**Secretary & Newsletter**: Suzanne Currie
**AOS Chair:** Darlene Rathwell
**Membership**: Dora Glover
**Plant Sales Table**: Donna McDonnell
**Library**: Michael DeLeur
**Refreshments**: Sandra Lathrope
**Programs**: Nancy Miklic
**Publicity**: Sheila Wilson

## UPCOMING MEETINGS & EVENTS

### 2018

**September 22**: CVIOS Meeting Speaker: Roy Tokunaga from H&R Orchids

**October 20**: CVIOS Meeting

**November 17**: To Be Determined

**December 8**: Christmas Luncheon

### 2019

**January 19:** CVIOS Meeting

**February 23**: CVIOS Meeting

**March 23**: CVIOS Meeting

**April 27**: CVIOS Meeting

**May**: Possible Plant Sale

**June 22**: CVIOS Meeting & AGM

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**September 2018**

## CVIOS UPCOMING EVENTS:

**September 22:** Roy Tokunaga of H&R Nurseries will be speaking his topic is: Latouria Dendrobiums

Roy will have plants for sale at the meeting. Plants will be priced in Canadian dollars and preferred payment is cash. Visa & Mastercard will be accepted but will show as US funds on your bill.

## INFORMATION




**Photos from the Nanaimo Art Gallery CVIOS orchid display – thank you to all who donated their time to set up the beautiful displays!**

## President's Message

I would like to welcome everyone back for the 2018-19 orchid season.
As President I have a few projects in mind for this season. We will be looking at new fundraising ideas or at least tweaking old ones. If you have an idea, please let me know.
Our constitution needs a little work, mainly with legal wording. If you have any experience with constitutions, please come forward.
Members that have spent decades taking our plants to shows are now at the age they do not want to do the work anymore. I will be looking for other members to help. Even if you do not have the experience we can use the help until you can do the work on your own.
Our Society is only as strong as it's volunteers and we need a strong Society.
Happy growing and I hope everyone has a successful 2018-19 season.

Don Miklic

## Biography Roy Tokunaga:

I grew up on the beautiful island of Maui, in the Hawaiian Island chain. I left Maui for Honolulu, Oahu to attend the University of Hawaii. It was in the honors program, my favorite mentor, Dr. Yoneo Sagawa, introduced me to Orchids and the new emerging technology of Orchid seed germination and cloning. I eventually earned a bachelor's in education, to teach biology. I was recruited to work at an Orchid cloning laboratory, E&R Orchids. For seven years I honed my skills in seed germination and cloning. In 1981, I partnered with Harry Akagi to start H&R Nurseries in Waimanalo, Hawaii on the island of Oahu. I am a judge Emeritus for the American Orchid Society as well as the Honolulu Orchid Society.

Today, I have been hybridizing, cloning, and germinating seeds for more than 40 years. H&R maintains a laboratory to do its seed germination and grows Orchids under one acre of shade houses. I have been refocusing H&R to excel in the culture of species as well as providing hybrids in the Dendrobium and Cattleya Alliance. My passion has been the proper nutrition of Orchids and the mythical flower booster. I am working on a power point program to share my discoveries.

**dendrobium sect Latouria by afriorchids**

# CVIOS ANNUAL GENERAL MEETING MINUTES

**June 16, 2018**

President Laurie Forbes brought the meeting to order at 12pm with 23 members present. The June 2017 AGM meeting minutes were reviewed Darlene Rathwell moved to accept Sean seconded the motion. Motion carried.

## Treasurers Report

CVIOS treasurer reviewed income and expenses for the year and recommended audit when a new CVIOS treasurer takes over Darlene Rathwell moved to accept, Dora Glover seconded. Motion carried

## Elections

Positions are as follows:

July 1, 2018 to June 30, 2019:

Executive:
President: Don Miklic
Vice President: Dora Glover
Past President: Laurie Forbes
Secretary: Suzanne Currie
Treasurer: Darlene Rathwell
AOS Chair: Darlene Rathwell heading a committee of: Laurie Forbes, Valerie Melanson, Suzanne Currie and
Sheila Wilson

Directors:
Membership: Dora Glover
Library: Michael deLeur
Programs: Nancy Miklic
Plant Sales: Donna McDonnell
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Sean moved acceptation of slate of officers, Alexey seconded. Motion carried.

Laurie and Darlene converted CVIOS Bylaws to digital format. Copies will be available in September. Mike Miller recommends updating bylaws before next AGM. Last update was 2011.

Mike Miller moved to adjourn AGM, seconded by Dora Wilson. Meeting adjourned 12:27

# CVIOS Minutes of the General Meeting

**June 16, 2018**

Laurie Forbes called the meeting to order at 12:28 pm with 23 members present and visitors Emma Sise and artist Arvo Leo

Laurie asked for a motion to accept April 21, 2018 minutes. Mike Miller moved acceptance of the minutes, Sean 2nd the motion and motion carried.

Correspondence: 3 magazines are available to sign out

Darlene presented the financial summary to the end of May and Sean moved acceptance of her report, Darlene second. Motion carried.

GENERAL BUSINESS:

Nanaimo Art Gallery Exhibit: The artist Arvo Leo spoke of his exhibit and his love of orchids. CVIOS members are welcome to display their orchids at the Nanaimo Art Gallery beginning June 22. Setup will be June 21. Please have ID labels on orchids and take them to Laurie Forbes or Mike Miller by Thursday morning June 21. The exhibit opening is Friday, June 22 at 7pm

Summer Picinic: The picnic will be held at Margaret Manns on Gabriola Island, Sunday July 29. She lives at 135 Easthom – 1 mile from ferry. Ferries leave Nanaimo at 10:30 and 11:55, return at 3:45, 4:20 and 5:35.
More information will be emailed.

Plant Sale: The plant sale was successful and CVIOS will host another in 2019

Meeting Dates: Discussion regarding changing the meeting date to make it easier for speakers to attend our meetings. Laurie will check if Sunday is available for meetings

Programs: H&R nurseries in September – more information will be emailed

Meeting adjourned 1:45pm

# Orchid Nutrition Presentation (parts 1 and 2) Summary, Alexey Tretyakov

## Part 1 General Information

**Improve photosynthesis** by humidity management:

- Keep humidity at the temperature-related rate. Average ideal humidity is in range from 70% to 85%. Also, there are absolute minimum and absolute maximum criteria. For particular criteria refer to Autogrow.com. Note: Humidity below of recommended minimum and higher than recommended maximum will reduce water transpiration of the plant. Low water transpiration will slow transport of fertilizer from roots to the leaves and will reduce plant photosynthesis efficiency. Note for windowsill growers: to prevent mould contamination of your home never keep humidity higher than 55-60% at your growing area.

**Improve photosynthesis** by CO2 management:

- Note: CO2 is an essential substance, converted by the plant's photosynthesis into sugars, starches and cellulose.
- If possible, use ambient air CO2 enrichment.
- Provide CO2 enrichment reducing boundary leaf layer by the forced air movement at the plant canopy. To prevent negative impact on the plant transpiration and to prevent possible desiccation of the plant, use non-continuous air movement. Fans at my greenhouse operate on timer (15 minutes of air movement then 30 minutes of still air period).

**Improve photosynthesis** by temperature management:

- Optimal morning temperature (17C) shall be reached during heating season as soon as possible.
- Try not to exceed temperature 27C in your growing area.

**Improve photosynthesis** during growing season by management of water uptake and transpiration:

- During sunny weather use less concentrated fertilizer solution - approximately 500 ppm of total dissolved solids (TDS). During sunny weather plant needs more water to be transpired to cool down leaf surface. Increased water transpiration in conjunction with high concentration of fertilizer could cause fertiliser-burn-like stress to the plant and reduce its photosynthesis efficiency.
- During overcast weather use more concentrated fertilizer - approximately 700 ppm of total TDS (see details below). During overcast weather water transpiration is greatly reduced. Irrigation with plain water or with low concentrated fertilizer solution will support active water absorption by the plant. Low water transpiration in conjunction with continuous active water absorption could cause oedema-like stress to the plant and reduce its photosynthesis efficiency.

**Improve nutrients uptake** by fertilizer application management:

- Mounted plants with exposed roots – first, apply fertilizer and then, approximately 30 minutes later, rinse with plain water.
- All potted plants – irrigation first (I use double irrigation by tap water with 15 – 30 minutes interval between irrigations), then fertilizer application.

**How to prepare CaMg-enriched water** for fertilizer solution:

- Take ground oyster shell or small chunks of dolomite or mixture of both in the amount, enough to fill ~ 3" of 5 gallon bucket (bucket #1). Note: Pre-rinse ground oyster shell well to remove sea salts.

- Fill the bucket with tap water and allow to stay for 1 week. Note: In my conditions after 1 week TDS will increase from 30 ppm to approximately 70 ppm. Longer exposure, even for several month, will not cause increase of TDS higher than 70 ppm.
- After week of exposure, pour calcium-enriched water to another 5 gallon bucket (bucket #2). Leave all oyster shell & dolomite sediments in the bucket #1.
- Use calcium-enriched water in bucket #2 for fertilizer solution preparation and apply that solution on the same day. Note: To prevent calcium precipitation, first dissolve fertilizer crystals in a small jar of tap water and then add that concentrated solution into bucket #2.
- Refill bucket #1 with tap water and leave it till next week fertilizing.
- After each 3 month add fresh portion of pre-rinsed oyster shell & dolomite to the bucket #1. Note: with time, even if still enough sediment is in the bucket, its capacity to release minerals into water drops and TDS will not reach initial 70 ppm. Fresh portion of oyster shell & dolomite will improve it.

**Seasonal fertilizer rotation**:

- Active growing period: from late February-March to late September. Use high nitrogen fertiliser formula, relatively high concentration of fertilizer solution and frequent application. My favourite fertilizer for Protocol #1 (see below) is a **Miracle-Gro All Purpose Plant Food (24-8-16)**. Apply it by-weekly at the beginning of the growing season and weekly from April-May.
- Period of maturation and dormancy: from September to February. Use low nitrogen fertiliser formula, low concentration of fertilizer solution and non-frequent application. For Protocol #1 use a **Miracle-Gro Tomato Plant Food (18-18-21).** Apply weekly, then by-weekly at the beginning of the season and monthly from December. I use it at 400 ppm at the beginning and the end of the season and at 200 ppm concentration in the middle of the season.

## Part 2 Fertilizer Application (During Growing Season) Protocols

**Protocol #1** CaMg-enriched water and off the shelf fertilizer:

- During sunny weather use ¼ tbsp of **Miracle-Gro All Purpose Plant Food (24-8-16)** per gallon of Ca-enriched water, which gives approximately 500 ppm of TDS for majority of BC tap water sources.
- During overcast weather use more concentrated fertilizer. I use ½ tbsp of **Miracle-Gro All Purpose Plant Food (24-8-16)** per gallon of Ca-enriched water, which gives approximately 700 ppm of TDS.

**Protocol #2** tap water and CaMg fertilizer:

- Best option is MSU RO/Rain Water fertilizer.
- Use TDS Meter to prepare 500 ppm concentrated solution for sunny weather and 700 ppm concentrated solution for overcast weather.
- Buy MSU RO/Rain Water fertilizer only from reliable source.

**Protocol #3** CaMg-enriched water and hydroponics fertilizer:

- I use Flora Series General Hydroponics Drain to Waste Late Growth Program (search General Hydroponics website).
- Use TDS Meter to prepare 500 ppm concentrated solution for sunny weather and 700 ppm concentrated solution for overcast weather.
- To avoid Ca precipitation do not forget first to dissolve FloraMicro in the CaMg-enriched water and only after that add FloraGrow and FloraBloom components.

# Latouria Type Dendrobium

**Orchids Dendrobiums of the Latouria type includes about 50 species distributed from the Philippines to Samoa, but without doubt the centre of distribution is Papua New Guinea, with about 45 species. They are epiphytes of rainforest trees from sea level to high altitudes, usually in areas of year-round rainfall. The plant size ranges from small to very large and the longlasting flowers vary similarly in size.**

**Dendrobium spectable the pseudobulbs are close together and although mostly clubshaped, vary greatly in shape, some being stout and others long & slender. The leaves lack a sheathing base and are borne near the apex of the stem. The inflorescences arise from near the apex, often appearing terminal, and have a few, rather fleshy flowers. The lip is prominently 3-lobed, with a prominent raised callus. Some large flowered species are among the most spectacular in the subtribe and members of the section are becoming popular in cultivation. `**

**Many Latouria types have long lasting flowers - e.g. D. Spectabile 7-8 weeks.**

**Culture: Most require 50-70% shade or if grown outdoors, early morning & late afternoon sun/dappled shade. Fertilize & water well when in growth. Keep dryer in winter but do not allow to dry completely in the cool months - if kept too wet there may be problems with rotting off - remove plant from pot, use fungicide (cheapest is diluted Condy's crystals) over plant including roots, and repot in fresh medium with improved drainage. Make sure it has good ventilation.**

**Some orchid hunters remained tight lipped about the habitats & conditions in which orchids they found grew. This was to avoid competition and probably to keep up the popular 'mystery' feeling of orchids, how difficult it was to grow them, and no doubt keep up their prices in UK. However, in 1906 a scrupulously honest collector reported `Many of the natives take the small plants I reject back to their villages and plant them. Some tie them on trees, others seem to fix them on rocks and again others simply plant them in the ground like cabbages. And the result is not by any means discouraging especially in the first two methods where the men plaster the roots over with mud or cow dung. The plants do well and make good growths and I always found the mud and specially the rotten cow dung full of roots.**

**Latouria Dendrobiums include: (those worth trying in South East Queensland) D. aberrans, D.alexandrae, D.amphigenium, D.atroviolaceum, D.bifalce, D.biloculare, D.convolutum, D.cruttwellii, D.dendrocolloides, D.engae, D.euryanthum, D.eximium, D.finisterrae, D.forbesii, D johnsoniae, D kauldorumii, D Kip's Special' (this is a natural hybrid between D. rhodostictum & D.ruginosum from Bougainville Island) D.macrophyllum, D.mayandyi, D.otaguroanum,D.polysema, D.punamense, D.rhodostictum, D.rigidifolium, D.shiraishii, D.spectabile, D.tapiniense; D.terrestre, D.woodsii, D.sp.aff.D.subquadratum.**