Canadian Orchid Congress
Fédération Canadienne des Sociétés Orchidophiles

COC news

Volume 13.3 - June 2001

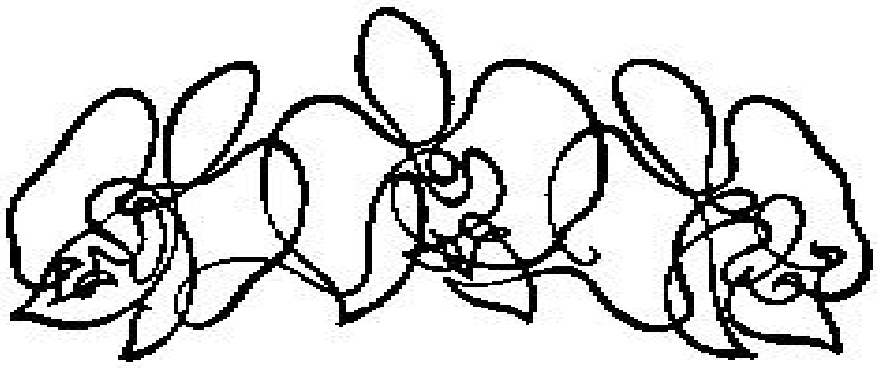
Contents

Summer is here at last. Everyone will be out in their gardens, weeding, mowing and watering. Hope you have all put your orchids out for their summer holiday. It has been a very busy year for everyone, shows, re-potting and chasing all the little critters that seem to find their way into our growing areas.

I had the opportunity recently to see the 'Phantom Orchid' (*Cephalianthera austinae*) in bloom. Five of us set out to hike to the area where these grow. They grow at a fairly high elevation, it was quite chilly. We found about 14 plants in spike, a few of which had one or two lower flowers open. If we had waited a week, I am sure they would have been fully open. In spite of this, we were thrilled to be able to see them in such great numbers. It was so exciting to see these rarely seen flowers. I had seen pictures but never in nature.

I hope you all have a very good summer.

Lynne Cassidy, President



Speakers Tour

The COC Speakers Tour is all set. It will start in the West on September 22nd, finish in the East on October 15th. The programs Francisco Miranda has available to choose from are:

- Orchids of the Brazilian Amazon
- Orchids of Rio de Janiero State
- Catasetums
- Cattleyas
- Rupiculus Orchids
- Laelias
- Oncidiums

I am sure everyone will enjoy this speaker. Contact:
Lynne Cassidy (604)536-8185
Email: lynne.cassidy@telus.net

Slide Programs

Slide programs available to Societies:

- Fragrant Orchids - by Marilyn Light
- Native Orchids, Cultural Notes - by Bill Bischoff
- Oncidiums - by Gordon Heaps

Programs almost ready, hopefully for the fall:

- Cattleyas - by Ken Girard
- Laelias - by Ken Girard

These are available for loan to the socities. When reserving a program please include a cheque for $10.00 to cover cost of shipping and insurance. A cheque for $25.00 will be required as a deposit, this will be returned as soon as the program is returned. These can be reserved from:

Canadian Orchid Congress
c/o Janette Richardson
38 Straub Crescent,
Regina, SK S4T 6S6
Telephone: (306) 543-0560.

World Orchid Conference

The 17th World Orchid Conference is being held at Shah Alam, Selangor, Malaysia on **April 24-May 2, 2002**. For information check
http://www.orchid2002.com.my/

Margaret Hewings of Appleyby Lakeview Travel, Burlington, Ontario has arranged a travel package. She may be contacted for details at 1-877-818-3303, email: intraapplebylakeview@sympatico.ca

Orchid Conservation Congress

Perth, Western Australia, 24-28 September 2001
Kings Park & Botanic Garden, West Perth 6005, Western Australia
http://www.bgpa.wa.gov.au/OrchidCongress/OrchidCongress.html

Kings Park & Botanical Garden in conjunction with the Orchid Specialist Group of the Species Survival Commission of IUCN- The World Conservation Union, The American Orchid Society, Botanic Gardens Conservation International, and the Australian Network for Plant Conservation invite you to attend:

The First International Orchid Conservation Congress

Incorporating the Second International
Orchid Population Biology Conference

For the first time, orchid conservation specialists, researchers and practitioners from around the world will be meeting to develop an understanding of global issues in orchid conservation.

The Congress will cover topics including phylogeny of the Orchidaceae, pollination and population biology, propagation science, germplasm storage and conservation genetics with specialist workshops in orchid conservation techniques and orchid recovery planning.

The Congress will provide a rare opportunity for orchid professionals and those involved in orchid conservation to learn first hand about current practices in all aspects of orchid biology and conservation.

Speakers from some of the world's leading orchid conservation institutions will review the status of orchid conservation and the technological advances being made in conservation techniques.

Visit the above website for the latest information about the Congress or return your postal address to this Email for me to send a hard copy of the conference registration brochure to you.

Kind Regards

Heather Eade
Conference Assistant

Artwork honours species discovered by a Canadian

by Janice Mawhinney - LIFE WRITER

When Allan Tetzlaff's special slipper orchid first bloomed, it stood his whole life on its ear. Tetzlaff, a psychiatric nurse and orchid fancier from St. Thomas, Ont., breeds slipper orchids that originated in South America. There are hundreds of hybrids of these orchids, but only 32 species types have been discovered since 1831.

Before this orchid family was placed on the endangered species list, Tetzlaff ordered a certain specimen, through a friend in Montreal, who got it from a collector in Venezuela. He nursed it along in his greenhouse until it bloomed.

And then he just stared at it, amazed. The orchid flower was nothing like he expected, and certainly not the plant he had ordered. In fact, it was nothing like anything he had ever seen or heard of before. It was wildly exotic, even for an orchid: green with cream and burgundy markings, a big, pouty-lipped pouch and long, dark red twisted moustache-like petals.

It turns out that Tetzlaff had unwittingly come across a new species slipper orchid - one that no one had recognized or registered in the 170 years this type of orchid has been studied.

"I'm really excited," Tetzlaff says. "This is quite stunning."

Not only has he been able to name this species of orchid after his father's family name (it is registered as *Phragmipedium tetzlaffianum*) but friends in the arts community have been so inspired by the event that the orchid has had several works of art created in its honour.

Stratford artist Gerard Brender à Brandis made a woodblock with precise detailed lines showing the plant's fountains of leaves and two open-mouthed blooms.

Art dealer Jonathon Bancroft-Snell commissioned works from three other Canadian artists, and displays them with the orchid plant itself in his gallery in London, Ont. He says the history of commissioning works of art in honour of botanical treasures is a long and rich one. Napoleon's Empress Josephine had her roses immortalized by the painter Pierre-Joseph Rédouté.

Bancroft-Snell wanted no less for Tetzlaff's slipper orchid.

"We always have fresh orchids in the shop: I love orchids," says Bancroft-Snell. "They are spectacular, fabulous flowers. And this is a really exciting event. It's the first time a species slipper orchid has ever been named for a Canadian."

David Vancook, a young Thunder Bay artist, painted five watercolours of the flower, one of which has sold already, says Bancroft-Snell. One of the remaining watercolours shows the entire flower, one has its focus on the top of the bloom, another on the side of the pouch and the last one is a semi profile.

Vancook places the green bloom against a wine-coloured background and keeps the shades gentle and soft, while the anatomical detail of the orchid is meticulously correct.

Sculptor George Shadford of Ingersoll has created a bronze jardinière just over 15 centimetres high and 20 centimetres wide, with an image of the orchid in high relief in a multiple image around the jardinière.

Potter Robert Têtu of Seaforth is making vases with the orchid hand-carved in low relief. The vases will have the gray-green glaze known as celadon, and there will be fewer than 12 in existence. "The exact number depends on what survives the firing," explains Bancroft-Snell. Têtu has had other examples of his celadon vases on display at the Royal Ontario Museum. He used to raise orchids himself.

Every piece of art commemorating the orchid is original, Bancroft-Snell observes. Nothing is being mechanically reproduced. Brender à Brandis will make up to 100 original prints from his woodblock of the orchid on a 19th century press.

Tetzlaff says he is delighted that the orchid has triggered this response. "I didn't expect this flurry of art," he says. "It's overwhelming. It's like being a proud parent."

Recognizing the orchid as something unacknowledged in orchidology wasn't enough to give Tetzlaff his fatherly status with the plant. It had to be studied and declared unique and new by an international orchid expert, and its discovery published in a reputable orchid journal. If, at any time during that process, someone else published a discovery of the same plant, Tetzlaff would lose his opportunity to name and introduce it.

For that reason, the orchid's existence remained a closely guarded secret among a small circle of Tetzlaff's friends for the past two years.

"The first thing I needed was for a world-class botanist to examine and measure it in extreme detail to see if it could possibly be a variation of something else, or if it really was unique." Tetzlaff says.

He put out computerized feelers, and found that Olaf Gruss, a German botany professor, was interested in examining the plant. "He wanted to see the flower parts so I sent him the flower parts, and he kind of freaked out," recalls Tetzlaff. "It really was something new. "Then the race was on. We had been e-mailing each other for two years, and last October he started work on the article. He's a professor and a botanist; this will enhance his credentials."

The race to publish took place across two continents, with Gruss working on the article in Germany, and Tetzlaff and his friends providing the information and photographs he needed from Ontario.

Karolina Skinner remembers a mad midnight dash with the orchid from the greenhouse in St. Thomas to the home of a photographer friend in London, trying to meet a deadline.

"Late at night I raced the plant to him, he took the pictures right away and we sent the slides straight to Germany," she says. "The experience was full of frantic scurrying to meet the publication deadline. It was all very exciting."

The people working with the orchid didn't even call it by name during this tense time. "We always called it Species One," says Skinner. "We didn't want to jinx it."

In return for all their help, Tetzlaff gave Richard and Karolina Skinner a cutting of the orchid plant. "It's very dramatic," says Karolina Skinner. "It's an amazing, breathtaking flower. I could stare at it forever. Most South American orchids only give you one flower at a time, but this one gives up to eight in a cluster at one time. It's stunning."

When Gruss published an article about *Phragmipedium tetzlaffianum* and colour photographs of the plant and the flowers in the Italian botanical journal *Caesiana* a few months ago, the race was won.

"We'd all been holding our breaths," says Tetzlaff, who breeds orchids in his greenhouse. "It's a delightful member of its family, but I couldn't breed with it unless it was named. I hope to create a number of hybrids." Tetzlaff adds that the event was emotionally satisfying to him, as well as being a triumph as an orchidologist. He enjoyed sending copies of the *Caesiana* article to family members in Saskatchewan. He says he named the orchid after his late father, who died in 1973 after a career working as a yardmaster in the railroad station in St. Thomas, Ont.

Tetzlaff's orchid can be viewed at Jonathon Bancroft-Snell Interiors in the Galleria in London, Ont.

"Reprinted with permission - The Toronto Star Syndicate."

Building a Solarium

Are you planning to add a solarium on to your house this year? Maybe next year? Sometime?? Have you wondered how to go about it? After all, it's going to cost a bundle, and you want to do it right, because you will have to live with any mistakes. Well, to date, I have built three: two in Saskatchewan and one in Kelowna, and I have some opinions, biases, and suggestions (warnings ?) for you.

First, how big should it be? The usual advice is to make it as big as you can afford. While it looks bare with only a handful of small plants in a corner, it is surprising how fast plants grow, and how many new ones you accumulate, and how soon your solarium is not big enough. But let's be realistic. Do you want to live in a solarium with a small house attached? You do? Have you any idea how messy plants are? The occasional dropped leaf or faded flower to cut off the dozen or so plants you have around the house is absolutely no introduction to the mass of litter a couple of hundred plants can dump on your floor, along with dirt from plants fallen or knocked over, and water seeping out of pots or spilled while watering them. Still, when you love all plants like I do, or love orchid flowers like Charmaine does, you will tolerate this messiness.

Consider what you plan to use the solarium for (as well as keep plants in it). Will it be an extension of a room in your home? Is it going to be an extra room in the home? Or will it be more like a greenhouse attached to your home? Also, be aware that there are several insects that love plants even more than we do. The more closely your solarium is integrated into the rest of your home, the fewer options you will have to control those pests.

The first solarium we built was entirely within the home. In fact, we built home and solarium as one. The home was sort of like a rectangular C shape around three sides of the 10 x 19 ft solarium. The short side and roof had the glass, and faced south. The dining room-kitchen were on one long side, and the living room was on the other. It worked very well. We still have the plans in case we win the lottery some day... The second one was an add-on to the kitchen. Its floor was about three feet below the kitchen level, and we had a dining area as a balcony jutting out into the solarium. The size was 10 x 20 ft. The short side and roof were glass and faced south. The west wall was an attached garage and we went through the solarium to go to the garage and to the patio. In Kelowna our solarium is 18 x 24 ft and faces south-west. We set up our patio furniture in it in winter. It is very pleasant to have lunch there among our plants when it is too cool outside on the patio. In our case, we do this mostly in spring and fall, because we run the place too cool in winter and too hot in summer to use it for meals throughout the year.

Consider the floor. Water weighs 62.5 lbs per cubic foot. Plants are mostly water. Wet soil can weigh up to 100 lbs per cubic foot. The floor has to be strong.

The first house we built had a full basement, including under the solarium. I told the builders to put the joists (the usual 10 x 2's) on foot centres, and we used tongue-and-groove 3/4 inch plywood as sub-floor, glued and nailed. It was rigidly solid! On it we put 1/2 inch unglazed quarry tile. I was concerned about wet floors being slippery, and there is no question you are going to get wet floors. So I specified that the quarry tile have carborundum bits embedded in the surface. This was overkill. If you were wearing socks, it wore them out walking on it. If you weren't, it wore out your feet! Note that the reason unglazed tiles are less slippery than glazed ones is because they absorb everything. Including plant pot marks, sliding furniture marks, shoe scuffs, etc. And the marks don't come off. The second solarium had a concrete floor laid on 2 inch styrofoam, and bathroom floor type tiles on the concrete. The tiles had a matte glaze and weren't too slippery. Still, they marked up for the usual reasons - mostly plant pot rings. Applications of extreme elbow grease would get most of the marks off. With both solariums we had to water either by taking the plants to the kitchen sink (the hanging plants), or with a watering can (the plants on the floor). Here in Kelowna

we have concrete bricks on a sand base. We water with a hose, and it is very handy and quick. The water soon drains between the bricks and we can wet down the floor for humidity and cooling on hot days. The bricks are unglazed and mark up, but with watering, cleaning, and general wear, the marks fade over time.

When you plan the superstructure - the walls, roof, and windows, think HUMIDITY. Both you and your plants will benefit from higher levels and your house will suffer. A good, tight vapour barrier is essential. If your builder works to the Canada R2000 standard, then all is well. If not, keep a tight rein on the vapour barrier installers, or do it yourself. Don't think that all is done when you have a good vapour barrier installed. Wallboard workmen usually do a good job fast, but they are liable to shred your vapour barrier around electrical fixtures when they cut the holes in the wallboard. Don't let them. Threaten serious damage to their finances and reputation if they so much as stick a pin through your vapour barrier. If you are adding to your present house, consider how good your present vapour barrier is. If there are miniature hurricanes blowing out of your electric plugs, you have a problem. If your window curtains wave in the breeze when your furnace fan is off, you have a problem. Because when your plants raise the humidity to 40% or more, moisture will escape through the holes in the vapour barrier, freeze in the insulation, and cause a small flood, or start rotting the walls when the ice melts in spring. Interior paint does not stand up well to water splashes. Bathroom paint is better, but not satisfactory when water runs down the wall. I haven't tried exterior paint, so I cannot comment. Presumably it would work well. Just remember that exterior paints are designed to "chalk", that is lose surface as dust. It keeps the paint looking fresh and clean, rather than becoming dull and dirty over time, but it also means that the paint wears out. I have used cedar wood finishing in all my solariums because of its rot-resisting properties. I have always finished it with either varathane (urethane plastic) or spar varnish (water resistant varnish designed for boats). Both have worked well, but they don't last for ever, especially on horizontal or near-horizontal surfaces where water can (and does) collect. For windows, seriously consider triple glazing, not for the heat savings, but for humidity control. When your humidity is 40-50%, and the temperature outside is -20, you will get condensation and ice on double-glazed windows, guaranteed. The water will collect on the sills and start rotting them. Worse, it will get into the window frame and may break the seal on the glass units. Run a bead of silicone around the inside of your windows. This prevents the water getting into the frame. Keep an eye on this, because it will let go eventually and will have to be replaced. You will likely get mould growing on the window frames where the moisture collects in winter. There may be some marine paint that will stop this. We clean it off with bleach every spring. None of this will happen with triple glazing. Alternatively, replace the insect screens with plastic ones (polycarbonate) in winter. This effectively gives you triple glazing, and the seal doesn't have to be perfect.

The roof pitch (slope) is a matter of personal choice and architectural style. We have always used 4/12 pitch which is the minimum for standard shingles. The ideal slope for light entry is about the same as the latitude, because this is the slope that allows light to hit the glass nearly vertically at midday in summer. Glass absorbs about 5% of light hitting it per layer, so double-pane windows let about 90% of light in. Some more is lost if the light hits the glass at an angle, which it is bound to do at some part of the day. It is reasonable to assume that clear plastics have much the same transmission properties.

Glass is heavy. In Saskatchewan we nailed three 2 x 10's together in one case and three trusses in the other, to make a strong support for the roof glass. I used patio door glass units (3 x 6 ft), and made the frames from 2 x 6 cedar. On vertical windows, the weight of the glass is supported by a couple of rubber wedges on the bottom, and a sticky tape is applied to the frame to seal the glass to it. On a sloping roof, you need the same wedges at the bottom, but the sticky tape that goes on the frame has to have a fibre or plastic string in it to support the glass without squeezing all the seal out. Flashing and sealing on a roof is critical. Use lots of roofing cement around the flashing and lots of black (to resist the UV rays) silicone around the glass edges. Use tempered glass on a roof. The tempering reduces the coefficient of expansion of the glass to near zero, and if it breaks while you are under it, you won't have large, sharp chunks of glass bouncing off your head. Unless you are good at deal-making, you won't save much money by making your own roof windows, and there are very good units available in all kinds of sizes these days.

Plastic is light. In Kelowna we used triple-layer polycarbonate for our roof windows. These diffuse the light so neighbours overlooking us from above cannot see in. Polycarbonate is also strong, and resistant to UV which can destroy many plastics. There is a downside to it, of course. Polycarbonate has a high coefficient of expansion. It is recommended not to use pieces wider than 2 feet. In our solarium, the roof units are about 13 ft long, and this varies about an inch between winter and summer, so the flashing has to allow for that. We anchored the polycarbonate sheets at the bottom, and used metal side barcaps with a rubber seal that allows the polycarbonate to

move up and down with enough room at the top for the expansion. Also, when it rains, polycarbonate is a lot noisier than glass.

Think about heating in winter. Will you use the current furnace to warm your solarium? Will it have the extra capacity? Our first house in Saskatchewan was designed with R20 walls and R40 ceiling, and heating was cheaper than your standard house with R12 walls and R20 ceiling, even with all the windows we had. The addition to our second house replaced a west R12 wall with an R20 wall plus garage, and I increased the ceiling from R20 to R40. I don't know what the heating costs were before, but I doubt if it went up much. Anyway, every family is different, so it is not possible to have good before and after comparisons unless you have lived in the house for several years before you add the solarium. In Saskatchewan, anytime the temperature was above zero in winter, and the sun was shining, it heated the house from about 10 am to 4 pm. That doesn't happen much in Kelowna because of the valley cloud, and our solarium being shaded from morning sun by the rest of the house.

Think about cooling in summer. Sunlight comes into a room and is absorbed by the floor and walls. These re-radiate the energy as heat. This is a problem I have not really solved. I know how: I just haven't done it. You need three things: shading on the windows, brisk air movement through the room, and water evaporation.

In commercial greenhouses, a type of white or green paint is applied to the outside of the glass. It washes off with rain so it has to be reapplied now and then. This cuts down the light entering and therefore the heat, but it looks awful on a solarium attached to a house. Some greenhouses use wood strips to cover about half the glass, again on the outside. This can look reasonable on a solarium, but you have to go outside to roll it up or down, and you have to do it every day. A real drag! I suppose you could have it all done by electric motor with automatic control by temperature or light intensity. On our second solarium, I put thin cloth that was about 50% metallised inside the roof windows. It helped, but the energy is already in the room by then, so it doesn't work as well as shade on the outside. You can also get various film deposits on glass. I have never been convinced that they didn't cut down on light that I wanted in winter, so I have always used plain glass. You can also get various methods of shading windows with gadgets between the two panes in double glazing. Possibly they work, but I suspect they are expensive, and you will need automation for convenience.

Good, brisk air flow through the solarium will lower temperature towards ambient outside, but never below. To get your solarium close to the temperature of the air coming in, you have to have a high flow rate. The size and number of fans for this gets a bit noisy. After all, you don't want to be deafened in your solarium. Roof vents are highly desirable. Warm air will flow out naturally and be replaced by cooler air from outside coming through open windows low in the (preferably) north wall. You can get roof vents that open automatically when the inside temperature rises to a set point. A couple of quiet fans to help things along are tolerable.

From my vague memory of physics at school, I recall that when water evaporates it has to extract a huge amount of energy from its surroundings. This is the basis of the evaporative (swamp) cooler. Water trickles down some pads, and a fan pulls air through the pads at the same time. As the water evaporates, it gets the needed energy from the air, which consequently is cooled. A byproduct is higher humidity in your solarium. The air coming in has to be pretty dry, because just lowering its temperature increases its humidity and you can't go higher than 100%. This is no problem most places west of the Red River. We have an evaporative cooler in our Kelowna solarium, and it holds the temperature reasonably well until it gets above about 90 F outside. In my opinion, our unit isn't big enough, and it would be better mounted in an outside wall so that there is no possibility of mixing used air with new air. Possibly, some very fine misting nozzles connected to the water line and mounted near the ceiling would also work. I have heard that those used in oil furnaces are suitable. The idea is to create a very fine mist, the droplets of which would rapidly evaporate, getting their energy from the air around them. I suppose you could always use air conditioning, but it will be horrendously expensive. We have an air conditioner in our house, but in summer, I close the doors and air registers to the solarium so that the air conditioner cools only the house.

So do build your dream solarium, and with some forethought and planning it will not become a nightmare. Two things you must give more consideration to than we do in a standard home: heat - too little in winter, too much in summer, and humidity - too much in winter, and too little in summer. Plants are reasonably forgiving - more than the house surrounding them, and are a pleasure to have around us, green and flowering, especially during those cold winter days when we cannot garden outside. If you have questions, do give me a call - 250-769-7848.
And - Good Gardening.
John Waddington

UPCOMING EVENTS

2001

Sept 29-30: Central Ontario Orchid Society, the lower level of the University Centre Building at the University of Guelph, Guelph

Nov 10-11: Niagara Region OS, Queen Elizabeth Centre, Facer St. (QEW and Niagara St), St Catherines

2002

March 22-24: The Canadian Orchid Congress Annual Meeting is being held in conjunction with the Saskatchewan Orchid Society orchid show.
The Co-chairs are: Faithe Prodanuk - faithep@home.com
Tracey Thue - thue@sask.usask.ca

April 24-May 2: The 17th World Orchid Conference is being held at Shah Alam, Selangor, Malaysia. For information check http://www.orchid2002.com.my/

2003

April 3 - 5: The 2003 Mid America Orchid Congress and Show will be hosted by the Southern Ontario Orchid Society at The Inn on the Park at Eglington Avenue East and Leslie Street.

COC Web Site - http://www.CanadianOrchidCongress.ca/
This newsletter may be found there.
Please send in your show information - date, location, contact, etc.

news

2001 - 6 Willow Street,
Waterloo ON, N2J 4S3
Phone: (519)885-1888
email: jerry@uwaterloo.ca

Editor: Jerry Bolce

The purpose of COC news is to inform members of the meetings, policies of the COC, to profile members, and to provide technical information regarding happenings, trends and techniques in orchid culivation across the country and around the world.

We welcome your suggestions and contributions. Deadline for each issue is one month before the issue dates previously announced.

Recipients of this newsletter are strongly urged to pass a copy on to other members of their society

Officers of the Canadian Orchid Congress

President ..... Lynne Cassidy
604-536-8185
email: lynne.cassidy@telus.net

Past President Marilyn Light
819-776-2655
email: mlight@uottawa.ca

Vice-President Ingrid Ostrander
250-652-6133
email: ifl@telus.net

Treasurer ..... Janette Richardson
306-543-0560
email: dale.richardson@sk.sympatico.ca

Secretary ..... Terry Kennedy
905-727-3319
email: ourtropics@ica.net

Education ..... Ross Otto
403-255-5448
email: raotto@computer.org

Conservation . Marilyn Light
819-776-2655
email: mlight@uottawa.ca