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Greetings!

The summer has slipped by quickly and it is time to return to those fall routines and of course, focus even more on those plants we are grooming for fall shows.

Speaking of Fall Shows, the Fall Show to be at this fall, is, of course being held in Calgary October 1 and 2. I know that every society in Canada has received an invitation to be there and all the information from our hosts. Get your registrations in so that you too can enjoy a wonderful show, the hospitality of Calgary members and add your voice to the matters that will be discussed at the Annual General Meeting of the COC.

At this meeting important items are on the discussion paper. Please read the contents of this newsletter carefully. It contains information regarding the proposed agenda for the meeting, the proposed amendment to the By-Laws of the COC for society to vote, and information regarding insurance matters. Discuss these items with your society members so that you or your representative in Calgary can cast your vote on these matters. If no representative from your society will be able to be in attendance, please send your vote *in writing to me* prior to 30 September so that your society decisions will be recorded at the meeting. You may send it by e-mail to mblewett37@cogeco.ca or by mail to 39 Vansickle Road, St. Catharines, On L2S 4C2

Thank you Calgary for inviting us. It will be a wonderful time for all.

I look forward to hearing from you...better still...See you in Calgary!

Margaret E. Blewett

The Notice Board

COC Insurance Renewal

The insurance coverage through the COC has been renewed for another year. The cost to the societies will be \$1.00 per member per year. Again we encourage all societies to join in the insurance coverage. The coverage is excellent and the cost is much lower than individual societies would have to pay for coverage. There will be further discussion at the AGM in Calgary. Any questions and concerns will be addressed at that time. If you are not sending a representative to the AGM you may contact Lynne Cassidy at email: lynne.cassidy@telus.net or phone: 604-536-8185.

Lynne Cassidy - Insurance Liaison.

CITES Control List 2005

NOW AVAILABLE ON THE CITES-CANADA WEB SITE

In 2004, the 13th meeting of the conference of the Parties (CoP) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) took place in Bangkok, Thailand, October 2 to 14. Regulatory amendments came into force in Canada on April 11, 2005.

The following orchids have been added to or remain as Appendix I: *Aerangis ellisii* syn. *Aerangis elata/platyphylla*, *Dendrobium cruentum*, *Laelia jongheana*, *Laelia lobata*, *Paphiopedilum* spp. (all species of Asian tropical Lady's slipper orchids), *Peristeria elata* (Dove flower or holy ghost flower), *Phragmipedium* spp. (all species of New world tropical lady's slippers), and *Renanthera imschootiana*.

The new Canadian CITES Control List 2005 is now available at www.cites.ec.gc.ca From the home page, click on 'Control List 2005' to be found at the bottom of the side menu. You will have the option of displaying, searching or printing the entire list or individual sections. Search for orchid-related information under Orchidaceae.

Slide Programs

Cattleyas - by Ken Girard.

Oncidiums - by Gordon Heaps.

Fragrant Orchids by Marilyn Light.

Hardy Orchids and Their Culture by Bill Bischoff

Phragmipediums by Ingrid Ostrander

Lycastes by Ingrid Ostrander

More information on the programs is available on the COC website.

FCC Awards

Thought I should tell you that my plant Hwsa. Aussie Quest received a FCC at the recent Vancouver O.S. show. I am calling it 'Black Magic'. What is even more amazing is the fact that two FCC's were awarded at this show. The second went to Paph. Prince Edward of York, the clonal name given is 'Sunny', Grown by Mary and Don Mills of Victoria O.S. - *Lynn Cassidy*

COOS 20th Anniversary

The Central Ontario Orchid Society celebrated its 20th anniversary on August 22 with a dinner party for all its members and guests. Three of the four founding members, Sally Mitchelmore, Flavio DaSilva and Jerry Bolce were honored with a crystal momento. The fourth, Jeannie Shantz, could not be located. The presence of Sally, 90 years old and as witty as ever was enjoyed by all.

Society Contacts

It is necessary at times to contact various members of your society. For instance, the COC Newsletter is mailed to each member society. Three copies are sent - one to each of the President, the Newsletter Editor and the COC Representative. At other times other members of your executive such as the Treasurer need to be contacted. In order to ease the keeping of my mailing list up to date, it would help greatly if you would:

- inform me of your new executive when changes are made
- check your website to see that your executive is listed, current and with email and phone numbers
- that there is at least an email address for contacting someone in the society.

Jerry Bolce

Canadian Orchid Congress Annual Meeting

The Foothills Orchid Society will be hosting the 2005 Annual Meeting of the Canadian Orchid Congress in conjunction with the Annual Calgary Orchid Show.

October 1, 2 2005
Triwood Community Centre
Calgary, Alberta

For more information:

Email - coc2005@shaw.ca

Web - <http://members.shaw.ca/coc2005/>

Agenda

1. Welcome:
2. Attendance:
3. Approval of Minutes:
4. Business Arising:
 - a) Amendment to By-laws to delete one person one vote:
 - b) Insurance:
 - c) Speakers Tour Co-Ordinators
 - d) Importation problems
5. Annual Reports:
 - a) Secretary:
 - b) Treasurer:
 - c) News Letter:
 - d) Conservation:
 - e) Education:
 - f) Others:
6. Election of Officers for 2005 – 2006:

The following persons have agreed to let their names stand for the cited positions as officers of the COC, 2005/2006.

President: Margaret Blewett, St. Catherine's - Ontario
First VP: Lorne Heshka, Winnipeg - Manitoba
Second VP: Faithe Prodanuk, Saskatoon - Saskatchewan
Secretary: Theresa Kennedy, Toronto - Ontario
Treasurer: Janette Richardson, Regina - Saskatchewan
Past President: Ingrid Schmidt-Ostrander, Victoria - BC

Respectfully submitted, I. Schmidt-Ostrander

7. New Business:
 - a) :
 - b) Location of 2006 Annual Meeting:
8. Adjournment:

Speakers List

The Banquet Speaker

Dr. Richard (Dick) Warren, of the Equatorial Plant Company, Durham, England will be speaking on the orchids of Brazil and the work that he and his partner David Miller have done to preserve a small part of the Atlantic Coastal Rainforest in Brazil. They have established a private nature preserve, and conduct scientific studies and various experiments in reintroduction of native species.

Conference Speakers

Jörg Frehsonke, Neukirchen-Vluyn, Germany

Jörg is the owner of Lucke Orchideen and will be speaking to us on **orchid growing in Europe**, from the giant, assembly line orchid nurseries that produce a high percentage of the cut and pot plant orchids in the world, to the specialist growers producing unique and interesting plants for hobbyists. Lucke Orchideen grows a wide variety of orchids including many unusual species and hybrids, particularly *Cattleya* alliance species and slipper orchid hybrids.

Cordelia Head, Easton, Connecticut

Cordelia is one of the owners of **J&L Orchids**, world renown for their miniature species. Their catalog can be found on-line at <http://www.jandlorchids.com/>. Cordelia is a long-time friend of the Foothills Orchid Society and has spoken here many times in the past. A pre-order will be organized for members and delegates.

Sam Tsui, Bloomington, Illinois

Sam is the owner of **Orchid Inn**, one of the leaders in *Paphiopedilum* hybridization. Sam is a long-time friend of the Foothills Orchid Society and has spoken here many times in the past. Plant lists will be available for members and delegates in September for a pre-order.

Constitution Amendment

At the annual meeting of the COC held in Richmond BC May 2, 2004 the Constitution and by-laws of the COC were approved and the COC became a federally registered not for profit organization. Subsequent discussion of the by-laws by those in attendance at that meeting indicated that By-law #2 Membership section (a) (i) which allowed for individual membership complete with voting rights for an individual was not acceptable to some societies. Following discussion by those in attendance, it was agreed that this by-law be amended to remove the section permitting individual membership in the COC; i.e. only societies who have paid their membership in full would be considered members and entitled to vote on COC matters. It is therefore proposed that at the annual meeting of the COC to be held in Calgary October 1 and 2, 2005 that the following change be made to the by-laws of the COC.

THAT 2. Membership be changed by the deletion of section (a) (i) so that Section 2 (a) will read:

“Society Membership - shall mean any Canadian orchid society who wishes to support the Congress and shall be entitled to Congress privileges and activities, including ONE vote per member society. The fee for such membership and dues shall be determined by the Board of Directors from time to time and shall not be refundable.”

This amendment will come before the annual meeting for voting. Prior to the annual meeting, it is requested that all societies discuss this proposed change and instruct their delegate or the president of the COC in writing as to how they wish their vote cast on this change.

As some of you may know, there is quite a bit of controversy about this latest discovery of a Peruvian slipper orchid. We have heard of smuggling the first plants into the US. We have heard of a special issue of a publication from Marie Selby Botanical Gardens who wanted to be the first to describe and name this species. They named the plant after the smuggler who brought the plant to them. Now, regardless of the fact that in the AOS publication 'Orchids' Dr. Eric Christenson had described this new species from photos and description of some South American growers (no smuggling or special editions involved) and he had given the plant the species epithet of 'peruvianum', the rule of priority applies.

When I mentioned my dissatisfaction about this procedure in one of my letters to Dr. Henry Oakeley, in error accusing the RHS of this (in my mind questionable) ruling, he replied that it was not the RHS but the International Code of Botanical Nomenclature which applies this ruling.

He further advised me that the need to have CITES documents for the international traffic of herbarium specimens will soon be repealed – but I hope that Mr. Kovach's misguided zeal in smuggling this plant into the US will not be declared legal, retro-actively.

There are flasks of this species offered (quite legally) by a Peruvian firm, with permits by INRENA the Peruvian Agricultural Ministry; there had even been a number of these flasks for sale at the Word Orchid Conference in Dijon this past spring. Dr. Oakeley has nothing but praise for the people who are working at propagating this impressive slipper orchid so that many people can acquire it, grow it, and thus have the pressure taken off any wild population of *Phrag. kovachii*.

That name still grates in my mind – I feel that Dr. Christenson's suggested name would have been far more appropriate – but who can fight: The International Code of Botanical Nomenclature, produced by the International Union of Biological Sciences Commission for the Nomenclature of Cultivated Plants.

Whew! What a handle!

By the way – if you really need to get this plant, please be advised that the large flowers, 20 cm across the front of the hot pink slippers, grow on an equally large plant – something like the *Paphiopedilum kolopakingii*, which would not fit on a windowsill with its 120 cm spread of leaves.

Now there is rumour of yet another new slipper – a large white South American beauty...

Ingrid Ostrander

QUESTIONS, QUESTIONS

Questions, questions...almost any question you want answered about orchid culture is my request and here is the first.

“Marilyn, do you know how to measure the light in a greenhouse using a digital or a film camera ?”

To respond to this question, I first searched the internet for possible sources then asked someone knowledgeable about digital cameras for some pointers. Then I posed some questions to myself.

A) What is the relevance of relative light level to hobbyist orchid culture?

While high light levels are recommended for orchids such as *Cymbidium* and low light levels are said to be tolerated by orchids such as *Phalaenopsis*, we must be careful not to consider light out of context with temperature, humidity, air movement, light source and plant growth state.

B) What is the relevance of metering to meaningful light measurement?

Plants use light for photosynthesis. They must be able to produce more photosynthetic product than they use in respiration in order to grow and ultimately flower but too much light especially when air movement is limited can be counterproductive. Irrespective of what a meter reads and what requirements are listed for a particular orchid, a good grower always looks to the plants for the final say as to whether the light level is or is not appropriate for their purposes.

C) What are the most important points to bear in mind when choosing a camera as a tool to measure light?

Camera type is irrelevant except that one must be able to set the ISO or digital equivalent film speed manually or in a menu; and one must be able to read the aperture/f-stop and shutter speed/exposure setting. Note that only the more advanced digital models have this function.

So, in answer to the question:

Step 1 - During the brightest time of the day, place a white sheet of paper where you wish to measure the light level.

Step 2 - Set the camera film speed to ISO 100 or the equivalent with a digital camera.

Step 3 - Point the camera at the paper being sure not to shade the paper with the camera or your body. The paper image should fill the viewfinder.

Step 4 - Read the f-stop/aperture and shutter speed/exposure setting.

Step 5 - Refer to a published table such as is found at <http://www.orchidlady.com/camera.html> Read down the f-stop column and across the exposure setting row to arrive at the approximate light intensity in foot candles. Note that (Foot-candles X 10 = Lux). A typical low light recommendation is 1000 foot candles for *Phalaenopsis* and about 2000-3000 for *Cattleya*.

Step 6 - Measure at various locations throughout the growing area at different times of the growing season. Apply shading, install supplemental lighting or move plants according to your observations. Watch the plants carefully for signs of leaf stress (reddening or yellowing indicating too much light for that plant under those conditions) or of etiolation (weak growths indicating too little light for that plant under those growing conditions).

PS. I must admit that I do not use a meter to measure light levels in the growing area. When we are covering our shadehouse with spunwoven polypropylene fabric (floating row cover) in late May, I use a piece of white paper at noon on a clear day to assess the relative light level. I place the paper where a plant would be placed and position my hand between the light source and paper, about one foot (30 cm) above the paper. We add fabric layers (usually 2 or 3) until the shadow of my hand just disappears. Cattleyas thrive in this light regime. Plants needing more shade get placed on lower shelves; plants needing more light on higher ones.
- Marilyn HS Light, milight@igs.net

Comment: Most light measuring devices (like a camera or light meter) are adjusted to respond to the spectrum that the human eye responds to which is pretty much the inverse that a plant responds to. An example being a grow light that appears a bluish pink and rather dull to us provides much more light to a plant than a white light that appears much brighter. A light meter would give a representative figure in a greenhouse with a clear glass cover since the spectral distribution is not altered. A worst case would be to have a green colored plastic cover since the red and blue that the plant uses would be eliminated. The greenhouse would appear bright to us, as the eye is most sensitive to green, but not to the plants. Similarly fluorescent lights would not measure correctly because of their spectral distribution.
- Jerry Bolce

Native Orchid Conference - Manitoba - 2005

The fourth annual meeting of the Native Orchid Conference Inc. (NOC) was held just north of the city of Winnipeg, Manitoba, Canada, July 9 to 13, in a peaceful pleasant conference centre situated along the banks of the Red River. <http://www.mts.net/~stbens/retreat/index.html>

A wine and cheese reception greeted early arrivals on Friday evening. There were some posters and book sales as well as registration on Saturday morning which was followed by a welcome by NOC President, David McAdoo and Vice-President and local host, NOC VP Lorne Heshka, who commented that it was an excellent year for orchids. Lorne, who we know as VP of the COC, was wearing one of his many other hats as co-author and photographer of *Orchids of Manitoba* which was released at the conference.

Recent heavy rain had water courses in full flood; the land was saturated and water pools were evident. There were mosquitoes accompanists on field trips and some mused about their possible role as orchid pollinators. I collected a specimen with a measured swab that preserved the diagnostic features and used this link to discover which species bit me so aggressively and painfully. <http://biomicro.sdstate.edu/Hildrethm/mosquito/sdmosquito.html#vexans> It was *Ochlerotatus (Aedes) dorsalis* which is characterized by pale coloured body scales and a pointed abdomen. Wetlands visited were very wet but the native orchids were in their prime for organized viewing opportunities. We were warned that water would be deep, deeper than rubber boots so I was happy that I would be wearing my old runners. If one was appropriately covered and using repellent, bugs were not a problem.

The conference featured an unique habitat, the Tall Grass Prairie, which receives about 50 cm (20 in) of rainfall annually. It is characterized by Big Bluestem Grass (*Andropogon gerardii*), and is the sole home to the Western Prairie Fringed Orchid (*Platanthera praeclara*). Agriculture has reduced the unique prairie habitat of central North America to critical levels. As little as 1% of the original habitat remains. Saturday was dedicated to presentations on the prairie habitat and the endangered Western Prairie Fringed Orchid.

Donna Danyluk and Ian Ward employed a 12-minute slide and music show to portray the peaceful passage through seasons of life on the Tall Grass Prairie. We learned about managed burns to reinvigorate the habitat and that the

poorly drained soils left by the glacial Lake Agassiz are home to aspen parkland prairie where groves of trees and shrubs are interspersed with areas of wet prairie.

Marilyn Latta, Past-President of the Manitoba Naturalist's Society (MNS) <http://www.manitobanature.ca/mbtgprbr.html> provided a detailed account of how the Tall Grass Prairie Reserve came into being. In 1987, MNS received an Outreach Award to identify Tall Grass Prairie remnants, spurred government interest, created an informative brochure, and after three years of intensive work and data collection, proposed that a reserve be created. They identified 4416 acres of tall grass prairie, the largest sites being two of 300 acres. Interestingly, railroad rights-of-way, while only 99 feet (one and one-half chains) wide, had been historically subjected to controlled burns thus conserving the prairie habitat. Today, the Tall Grass Prairie Reserve comprises some 8000 acres.

Dr. Charles Sheviak, New York State Museum, Albany, NY, explained how *Platanthera praeclara* came to be named as a distinct species. He had been looking at 'flat brown things' or dried pressed flowers of *Platanthera leucophaea* (Eastern Prairie Fringed Orchid) on herbarium sheets, realizing that there was a lot of variation in flower size and number. When he finally saw two blooming specimens side-by-side, he realized that there were in fact two species albeit close sister species exploiting similar but geographically separated habitats. Not only were the flowers of one group much larger but the floral column especially was very different with pollinia and viscidia much further apart in the western form. This would require different pollinators. The Western Prairie Fringed Orchid was published as *Platanthera praeclara* in 1986 by Sheviak and M. L. Bowles in *Rhodora* 88(854): 278-288. The specific epithet celebrates this orchid's noble stature.

Dr. Richard Westwood (University of Winnipeg) and Christie Borkowski presented an interesting overview of the pollinator relationship with *P. praeclara*. They are wondering why the Northern population has a lower seed set than that of the South. Is this due to pollinator limitation, low pollinator density or to pollinator inefficiency? They have used a variety of methods to assess pollinators which have found to be two night-flying sphinx moths, the rare Wild Cherry Sphinx, *Sphinx drupiferarum*, and the more common Bedstraw Hawkmoth, *Hyles gallii*. These moths have tongues long enough to reach nectar in the spurs of *P. praeclara*. Investigators have learned that the nectar sugar

concentration does not change over time but that the nectar level does increase at night when pollinators are active. Westwood and Borkowski showed how the use of ultraviolet light at night resulted in more being flowers visited. This could become a management tool to increase pollination. Future investigation will include an inventory of moth larval host plants, competing nectar sources and the effect of artificial light sources around orchid populations.

Dr. Jyotsna Sharma, University of Florida, explained how 75% of the historic populations of *P. praeclara* have been lost over the past 130 years. Little has been known about the mycobionts, population genetics or how to effectively propagate the orchid. Her investigations in six populations have shown that the Northern and Southern populations have two different mycorrhizal associates. Small populations are especially at risk: once variation is lost, it is lost forever. More research is needed to resolve temporal and spatial differences in genetic diversity.

Nancy Sather spoke about her work at the Minnesota Department of Natural Resources on the recovery of *P. praeclara* in that state. Tracking is accomplished with the assistance of 40 citizen volunteers. Populations fluctuate widely. Based upon a 19-year tracking study, she has learned that flowering plants have a higher survival and more frequently flower. Management is through a periodic prescribed burn every four years or by mowing in mid summer. Future studies will focus on the impact of an annual burn, on soil type and on the possible impact of climate change.

Marge From of the Henry Doorly Zoo, Omaha, Nebraska, spoke about their work with micropropagation and population augmentation as conservation tools. Seeds collected upon capsule dehiscence in September-October germinate poorly (<6%) but some seedlings have been raised to test re-introduction methods. Survival has been poor.

The Annual General Meeting of NOC was held Saturday evening followed by two presentations on orchids other than *P. praeclara*. Ronald Coleman, Tuscon, Arizona, provided an interesting account of the impact of fire on the 'sky islands' of the Santa Catalina Mountains near Tuscon. The fire of June 16, 2003 consumed some 85,000 acres when most orchid habitat was burned. The forest was closed during 2004 but it now appears that *Platanthera limosa* has survived in some pockets where post-fire runoff did not dislodge plants. *Malaxis soulei* is emerging in lightly burned areas, but *Malaxis abieticola* may be reduced to just one location as all the other places were heavily burned. *Corallorhiza maculata* and *C. wisteriana* have both re-emerged

but *C. striata* survival is uncertain. The southernmost colony of *Listera convallarioides* in the USA has had its habitat destroyed because of heavy run-off post-fire. *Dichromanthus (Spiranthes) michuacanus* grew in close proximity to alligator juniper between 5000 and 7000 feet but the junipers are now all dead so the survival of the orchid is uncertain in this region.

Christine Dudding ended an exciting day of lectures with an overview of her plans to study the population genetics of *Triphora trianthophora*. The Three-Birds orchid typically grows on a southeast 60° slope in deep litter pockets under beech (*Fagus*). Blooming happens two to three days after the first cool down in August with the first flowers opening between 10 am and 2 pm. This can be a challenging species to find in bloom.

Sunday was hot and muggy but enthusiastic participants armed with bug spray, protective clothing, and cameras took to the field to visit the Woodridge Bog and the Tall Grass Prairie reserve, both located about 100 km south of Winnipeg. http://www.gov.mb.ca/conservation/wildlife/managing/cwhp_tallgrass.html

The spruce-cedar (*Thuja occidentalis*) bog hosted 17 species, many of which were in flower. The yellow and ram's-head lady's-slippers, and the small round-leaved orchid had finished blooming but there were still many showy lady's-slippers in full bloom. What was especially interesting were the many small species located just within the forest edge. Members of Native Orchid Conservation Inc. assisted conference organizers by leading small groups. They also had flagged interesting specimens. We convened at the Ukrainian Museum in Gardenton for a delicious and refreshing lunch of perogies, cabbage rolls and salad. The great hospitality was appreciated.

The visit to the Tall Grass Prairie Reserve was well worthwhile. As we got closer to the reserve, we spotted specimens of *P. praeclara* and the occasional western red lily (*Lilium philadelphicum* var. *andinum*). We did not have to walk far before we found handsome specimens to examine more closely and to photograph. There was a strong wind so some shielding was needed to avoid having a 'motion picture'. Care had to be taken when approaching these precious orchids as there were tiny seedlings at the base of some. Still, the wind blew the mosquitoes somewhere else which was fine by everyone. Interestingly, none of the inflorescences observed showed signs of pollinator activity. Pollinia had neither been removed nor deposited on stigmas. Before we left a specimen, we were certain to fluff up the grass to restore the spot as best we could.

Monday, July 11, was a second day of lectures. Lorne Heshka provided an overview of Manitoba's orchid habitat which ranges from prairie in the South to tundra in the North. Of particular interest were the string fen channels of southeastern Manitoba where *Pogonia ophioglossoides* is in the northwestern part of its range. In the Duck Mountains, we find the Sparrow's Egg Lady's-slipper, *Cypripedium passerinum*, in the southern most part of its range. In the north, where there are shallow lakes over tundra, there are 10 species of orchid including *Platanthera obtusata*. Ian Ward followed with a photographic discovery of Manitoba's orchids from the widespread *Amerorchis rotundifolia* which usually blooms white with spots but is pink-flowered near Churchill.

Dr. Charles Sheviak told an interesting story about his travels to learn more about the real story behind *Platanthera hyperborea* in North America. His travels have taken him to Labrador, Seward, Alaska, and to Churchill, Manitoba, where the 'green' *Platantheras* are abundant, self-pollinating and all tetraploid (4N). He pointed out that among the distinguishing features is the shape of the viscidia which in *P. huronensis* is oblong, in *P. dilatata* is linear, and in *P. aquilonis* is round. *Platanthera huronensis* is of hybrid origin but now stabilized. The *P. hyperborea* described by Linnaeus from Iceland has oblong/linear oblong viscidia which suggests that there is much more to the story to come.

Roger Turenne of the Manitoba Chapter, Canadian Parks and Wilderness Society (CPAWS) www.cpawmsmb.org presented an overview of the process to bring a national park representing the Manitoba Lowlands into being. You can see the video by clicking on 'A National Park waiting to be Born' on their homepage. Their progress is presently stalled because of local community resistance. Citizen knowledge and support is required for all such initiatives.

Doris Ames, President of Orchid Conservation Inc. <http://www.nativeorchid.org/> related progress made by this 150-strong organization. Foremost in the minds of all participants was their impressive 158-page, full colour field guide to the *Orchids of Manitoba*, which was launched at the conference. This would be an excellent addition to any society library. She also previewed their public education video. Of particular interest was the recently established 820-hectare Brokenhead Ecological Reserve established south of Lake Winnipeg. Twenty-eight of Manitoba's 36 native orchid species grow in this calcareous wetland habitat.

Marilyn Light, North American Region-Orchid Specialist

Group, showed the range of native bees that visit the yellow lady's-slippers. Some may be too big and some too small but those having the appropriate thorax depth can be effective agents of pollination. She also showed how native bees may see these beautiful orchids. Using an 18A filter, co-investigator Michael MacConaill photographed the flowers with all but ultraviolet light reflectance and absorbance patterns appearing on film. Using a colour slide of the same flower, the images were overlaid and the colour shifted 200 nm to the right to accommodate the bee visual spectrum. The resulting image shows a deep pink flower with a darkened staminode tip where UV light is absorbed.

Dr. Carla Zelmer, University of Manitoba, presented an interesting overview of symbiosis and orchid mycorrhizal associations. She explained that non-green orchids such as *Corallorhiza* were holomycoheterotrophs, and completely dependent upon partners for carbon. Symbioses may be conditional and may only function under certain environmental conditions. She emphasized our need to know how to favour symbiosis by managing environments.

The conference ended with a useful demonstration of mycorrhizae and how they are isolated. Drs. Carla Zelmer and Jyotsna Sharma showed participants fresh mounts of sectioned roots, fungal isolates, and pure culture techniques.

On the last day of the conference, participants visited the newly established Brokenhead Ecological Reserve. Again, Doris Ames and fellow members had marked interesting orchids. They were present to guide people through a woodland trail and out into a sedge meadow where we saw *Platanthera dilatata*. Within the wooded portion were many handsome specimens of *Platanthera orbiculata*, *P. obtusata*, *Corallorhiza maculata* in two colour forms, *C. striata* in flower and fruit, *Malaxis*, and *Listera cordata*. We left that site at noon to permit those lucky individuals taking a side trip to the Churchill area to depart on schedule.

Carol Ferguson, Southern Oregon University, and Rob Coleman happily announced plans for the sixth Annual meeting of the NOC which will be held in Ashland, Oregon, June 9-12, 2006. An informative flyer listed some of the field trips planned to see many of the 14 possible species blooming in June. Details are expected in January 2006. - Marilyn HS Light

Additional Reading

Lilium philadelphicum var. *andinum* (Nutt.) Ker-Gawl. / Western Red Lily, Western Wood Lily (floral emblem for the province of Saskatchewan (syn. *Lilium umbellatum* Pursh)

Saskatchewan's Provincial Floral Emblem and a protected plant! <http://www.dnagardens.com/>

Manitoba laws affecting the conservation of orchids. 2003. <http://www.nativeorchid.com/hansBookChapter-v1-LawOnConservation.htm>

Species at Risk. Western Prairie Fringed Orchid http://www.speciesatrisk.gc.ca/search/speciesDetails_e.cfm?SpeciesID=200

Leafy Spurge Control and effect on orchids. <http://www.team.ars.usda.gov/reports/00rep/00lym2.html>

Pleasants, J. M. & Moe, S. 1993. Floral Display Size and Pollination of the Western Prairie Fringed Orchid, *Platanthera praeclara* (Orchidaceae). *Lindleyana*. 8, 1: 32.

Center for Plant Conservation - *Platanthera praeclara* http://centerforplantconservation.org/ASP/CPC_ViewProfile.asp?CPCNum=9293

MANITOBA GOVERNMENT NEWS RELEASE

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August 11, 2005

PROVINCE AND MANITOBA NATURALISTS SOCIETY ADD LAND TO MANITOBA'S NETWORK OF PROTECTED AREAS

355 Hectares of Extremely Rare Habitat Within Manitoba Tall Grass Prairie Reserve

The province and the Manitoba Naturalists Society (MNS) have agreed to protect 355 hectares of rare habitat within the Manitoba Tall Grass Prairie Preserve located south of Winnipeg near PTH 59, Conservation Minister Stan Struthers announced today.

"Thanks to the early work of the Manitoba Naturalists Society to identify our prairie remnants, more than 4,400 hectares of this tall grass prairie and related ecosystems are part of Manitoba's network of protected areas," said Struthers. "Conserving rare lands is a challenge in southern Manitoba because of pre-existing development, but with conservation partners such as the Manitoba Naturalists

Society, a portion of the province will remain as native prairie habitat."

The lands owned by the MNS will be protected through a memorandum of agreement with the province, ensuring they will be sheltered from mining, oil and gas, and other forms of development.

"The Manitoba Naturalists Society has been working for nearly 20 years to preserve Manitoba's tall grass prairie and we are very pleased that the Protected Areas Initiative provides a mechanism to both bring attention to and help protect this unique area," said Marilyn Latta, past president of the MNS and chair of the habitat conservation committee.

The agreement will be formally signed during Saturday's Prairie Day 2005 celebrations at the Manitoba Tall Grass Prairie Preserve in the rural municipality of Stuartburn. The event marks 85 years of promotion by the Manitoba Naturalists Society of the importance of the study and enjoyment of nature and the protection of the natural environment. Activities on Prairie Day will include guided walks, children's games, displays, speakers and bannock baking.

The MNS began an inventory of prairie remnants in 1987. The society later purchased some prime prairie remnants with funds provided by the province and private donations. These private lands will be added to Manitoba's network of protected areas.

The diverse prairie boasts more than 300 plant species and a variety of animals including butterflies, frogs, songbirds, deer, elk, moose, bears and some wolves. The Manitoba Tall Grass Prairie Preserve is home to a number of threatened and endangered species. The southwest corner of the province is the only location in all of Canada where the endangered western prairie fringed orchid (*Platanthera praeclara*) can be found.

"We commend the Manitoba Naturalist's Society for 85 years of service to the conservation of our natural history," said Struthers. "It is a reminder the great outdoor beauty of Manitoba is an ever-evolving panorama of nature and its many faces."

Tall grass prairie once thrived in the fertile soils of the Red River Valley, but since the 1800s, most of the prairie has been converted to agricultural land. Less than one per cent of Manitoba's native prairie remains today, making it among the most endangered ecosystems in North America.

COMING EVENTS

2005

Sept 24-25: Central Ontario Orchid Society, Cambridge Hespeler Arena, 640 Ellis Road, Cambridge, ON "<http://www.coos.ca/>"

Oct 1-2: The Foothills Orchid Society, Calgary, Alberta, will be hosting this year's **COC Annual Meeting** in conjunction with its annual show. "<http://members.shaw.ca/foohillsorchidsociety/>" "<http://members.shaw.ca/coc2005>"

October 22-23: Fraser Valley Orchid Society Show and Plant Sale will be held at a new location: The Ft. Langley Community Hall, 9167 Glover Rd., Ft. Langley, B.C.
Contact Merv Lutes at lutesara@yahoo.ca or phone 604-535-5183.

Oct 29-30: Eastern Canada Orchid Society at the Days Inn Hotel, 1005 rue Guy, in Downtown Montreal "<http://www.ecosorchids.ca/>"

Nov 12-13: Niagara Region OS, CAW Hall 124 Bunting Rd, St. Catharines, Ont Contact: Tom Cunningham, Show Chairperson
Email: tessiercunningham@cogeco.ca Phone: 905-934-8289

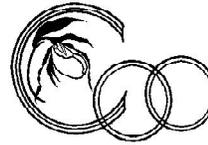
2006

Feb 11-12: The Southern Ontario Orchid Society at the Toronto Botanical Garden, Edwards Gardens. <http://www.soos.ca/>

Feb 24-26: Orchid Society of Alberta. in the Grant MacEwan College, Millwoods Campus, 7319 - 29 Ave. Edmonton, Alberta. This is to be an OAS judged show. Show chair: Mary Wilke, mjwilke@shaw.ca

Nov 11-12: Niagara Region OS, CAW Hall 124 Bunting Rd, St. Catharines, Ont Contact: Tom Cunningham, Show Chairperson
Email: tessiercunningham@cogeco.ca Phone: 905-934-8289 Mail: 11 Winfield Court, St Catharines, L2M 7K6

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



news

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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 cultivation 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

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