

# Canadian Society of Plant Biologists Société Canadienne de Biologie Végétale

## BULLETIN



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CSPB-SCBV President, William Plaxton

## Message from the President



### CSPB/SCBV to CSPB/SCBV Name Change.

At CSPB's 2011 Annual Business Meeting in Halifax our membership voted in favour of a motion to update the name of the Society to: "The Canadian Society of Plant Biologists/La Société Canadienne de Biologie Végétale". This new name reflects the broad and integrative scope of contemporary plant sciences, which has expanded to include many areas such as cell biology, genomics, molecular biology, bioinformatics, proteomics, metabolomics, as well as classical (eco)physiology. While we have a solid membership base, there are many innovative scientists of the Canadian

experimental plant biology community who are not associated with the CSPB. Our new name attempts to encompass such individuals who would further enrich CSPB conferences and enhance our effectiveness as an advocate for plant biology in Canada. We are presently preparing the first membership directory to be issued since the change in name of our Society.

An important CSPB mandate is to promote the participation of early career scientists, both students and postdocs and younger academic and government/private sector scientists. This includes encouraging grad student and postdoc oral presentations at our regional and national meetings, as well as numerous awards for grad students or younger scientists including The Ann Oaks Doctoral Scholarship, The Ragai Ibrahim Award for best student publication, generous Duff Conference Travel bursaries for students and postdocs, substantial cash prizes for the best student oral and poster conference presentations, as well as the prestigious CD Nelson Award that recognizes CSPB's most outstanding younger plant scientists who have been building their own independent research program. Existing CSPB members can play an important role helping to build our Society by encouraging colleagues conducting basic and/or applied plant science research to join and participate in our Societies' meetings - irrespective of the specific tools or approaches that they are using. CSPB membership fees have been maintained at a very reasonable rate (\$40/year full, \$25 postdoc or research associate, & \$15 student).

CSPB-SCBV President, William Plaxton

## Message from the President (continued..)

CSPB/SCBV Meetings. Annual and regional CSPB meetings are excellent networking venues for students, postdoctoral fellows and professional scientists to communicate and obtain feedback about their research, make important career connections, and to establish collaborations. The 2012 CSPB Annual General Meeting at the Univ. of Alberta in Edmonton was one of the best organized and attended meetings (and nicest venues) of this Society that I've ever had the pleasure to attend. The local organizing committee – chaired by Janice Cooke and Mike Deyholos – did an outstanding job planning this meeting and the accompanying program. It was particularly gratifying to see so many top-notch oral and poster presentations by CSPB student members. CSPB awarded ~\$10,000 in Duff Travel bursaries so that students and post-docs from all parts of our vast country were able to attend and participate in this exceptional meeting.

The CSPB 2012 Eastern Regional Meeting and a Plant Development Workshop happened at Wilfrid Laurier University in Waterloo (Nov. 30 - Dec. 1; <https://event-wizard.com/CSPBERM2012/0/welcome/>). The theme for this well attended meeting was "Symbiosis" and the local organizing committee (chaired by Allison McDonald) did a fantastic job while assembling a very interesting program. The 2013 CSPB Annual General Meeting will be held June 25-27 at the Université de Laval in beautiful Quebec City (I am very grateful to the local organizing committee chaired by Line Lapointe for taking on this important task); planning is well underway and information will be forwarded to the CSPB membership in the near future. CSPB's 2013 Eastern Regional Meeting will be held at the University of Toronto's Mississauga Campus sometime in late November or early December (with many thanks to the local organizing committee chaired by Ingo Ensminger).

The CSPB also has strong ties with related national and international organizations. Every fourth year the CSPB meets with the American Society of Plant Biologists. CSPB will work closely with ASPB over the coming year to design a compelling program and

select minisymposium presentations for the next joint annual general meeting in 2014 (Portland, Oregon). Through Plant Canada we network with several other Canadian societies that share a common interest in the plant sciences, and that gathered for the successful Plant Canada 2011 conference in Halifax, Nova Scotia. The next Plant Canada meeting will occur in 2015 in Edmonton; this is scheduled to be a joint meeting with the Botanical Society of North America (BSNA) and the Mycological Society of North America (MSNA).

Global Plant Council. In 2009 our Society joined The Global Plant Council (GPC, <http://globalplantcouncil.org/INDEX.HTM>), an international consortium of 13 plant biology societies from 6 continents. The goal of the GPC is to inform the global community and especially our politicians as to the central importance of the plant sciences in developing innovative solutions to the grand challenges posed by the current status of planet Earth; namely the explosive growth of humanity and its consequences, particularly the food and climate crises. I am very appreciative that CSPB's past President, Carl Douglas (Univ. of British Columbia), kindly agreed to represent CSPB as well as Plant Canada at the 3rd Annual Meeting of the GPC, which recently convened at Jeju Island in Korea. Please refer to Carl's detailed report in this Bulletin regarding various GPC initiatives arising from this meeting.

CSPB Response to Omnibus Budget Bill C-38 and Recent NSERC Cuts. On a less positive note, the omnibus Budget Bill C-38 which our Federal Government enacted earlier this year includes major reforms to Canadian environmental and fisheries laws, natural resource project approvals, and food safety, among the hundreds of measures included in the legislation. They have terminated long term and world renowned environmental monitoring programs, as well as the Roundtable on Environment and Economy, which set out economic pathways that were sustainable - while revealing a consensus between big business and environmental advocates. This has been coupled with major cuts to NSERC and

CSPB-SCBV President, William Plaxton

## Message from the President (continued..)

funding of fundamental/basic research in Canada, as well as shocking reductions to the NSERC Post-graduate Student and Post-Doctoral Fellowship programs. Apart from the recent cancellation of NSERC's Research Tools and Instrument's program, a number of internationally acclaimed Canadian plant scientists have also endured substantial decreases to their NSERC Discovery grants. Plant science research in Canada remains grossly underfunded, despite the negative impact of climate change and erratic weather on our crop and forestry production, as well as the world-wide demand for renewable biofuels, and increased food and medicinal plant production to support a rapidly escalating population. Scientific funding of NSERC, Agriculture Canada, and the National Research Council is being steadily reallocated to applied research that is 'business-led and industry-relevant'. Given the central role that food plays in human welfare and economic stability it is appalling how little funding is being allotted to plant science research. An essential role for a society such as ours is to communicate to the public and politicians about the central importance of well funded basic research in plant and tree biology in ensuring the long term economic well-being, health, and quality of life of all Canadian citizens. I urge CSPB members to become involved in this debate by consistently communicating to the people we encounter in our daily lives (be it our family, friends, or other acquaintances) the crucial roles that plant and forestry research will play in alleviating some of our planet's most pressing scientific and socio-economic problems. The CSPB executive and I would welcome views from our membership about ways that our Society might become better involved in effectively addressing this pivotal issue.

Need for More Balanced Funding of the Plant Sciences? The revolution in the Biological Sciences that began about 12 years ago with sequencing of the entire human and plant (*Arabidopsis*) genomes, continues unabated in the fields of animal, plant, and microbial genomics/bioinformatics, proteomics, metabolomics, and 'systems biology'. Remarkable insights into plant biology are being provided by the

ever-growing collections of plant genes and bioinformatic databases, as well as the implementation of high-throughput transcriptomic, proteomic, and metabolomic studies. With many plant genomes sequenced and others nearing completion, the next step is the less straightforward task of analyzing the expression and function of gene products (the proteins!). Genomics provides a crucial blueprint and a host of powerful tools for systematic studies of plant metabolism and development, but it simultaneously reveals that metabolism and development are incredibly complex and poorly understood. In particular: (i) the majority of sequenced plant genes encode proteins having unknown functions, (ii) many annotated genes encode multiple protein isoforms having poorly defined individual properties and roles, and (iii) it is impossible to accurately predict the functional properties of a protein (including its *in vivo* post-translational modifications, protein:protein interactions, and subcellular location) or the kinetic and regulatory properties of an enzyme solely from genomic information. A comprehensive understanding of cell biology, molecular physiology, and the chemistry of life will necessitate going far beyond the collection and cataloguing of massive 'omic' datasets that is currently in vogue. More balanced emphasis and support is needed for the critical work of innovative small laboratories conducting focused and detailed studies on important genes and the proteins they encode in order to fully decipher the incredible and wonderful complexities of plant development, metabolism, and adaptation to the environment.

Thanks (again) to Our Volunteers! I am very appreciative to the past and present members of our executive, and the various committees that help to make this a vital and vibrant Society. Their contributions are indispensable in keeping CSPB functioning smoothly, and in proposing and evaluating new initiatives in support of CSPB's fundamental objective: *the promotion of internationally-recognized Canadian research and education in basic plant sciences*. A particularly important aspect of CSPB's volunteers has been to encourage the development of younger plant scientists, and to honour members who have made exceptional contributions to our understanding

CSPB-SCBV President, William Plaxton

## Message from the President (continued..)

of how plants work. Our Society owes a special thanks and acknowledgement to former CSPB President and Senior Director Rob Guy (Univ. of British Columbia) for agreeing at last June's Annual General Meeting to having his 'arm twisted' to step in as our 'emergency' Senior Director, as well as to Harold Weger (Univ. of Regina) for extending his prolonged stint as CSPB's Treasurer for at least one more year. I encourage everyone in CSPB to consider becoming involved in the Societies' various committees and activities.

It has been an honour and privilege for me to serve as CSPB's President since taking over from past President Carl Douglas in July of 2011. I am quite grateful to Carl for his kind mentoring and guidance

during the years that we overlapped. It gives me great pleasure to welcome incoming President Vincenzo DeLuca (Brock Univ.). Vincenzo's extensive background in integrating fundamental and applied aspects of plant metabolic biochemistry, molecular biology, biotechnology, and physiology provides him with a strong and unique perspective from which to lead our Society when he assumes CSPB's Presidency next June. In the meantime, I am looking forward to meeting the CSPB membership while learning about your recent research endeavours at our upcoming Annual General Meeting in Quebec City.

Best wishes to all,

Bill Plaxton

CSPB-SCBV Treasurer, Harold Weger (Information provided by PAGSE)

## Partnership Group for Science and Engineering

The Partnership Group for Science and Engineering (PAGSE; [www.pagse.org](http://www.pagse.org)) is a cooperative association of national organizations in Science and Engineering. It was formed in June 1995 at the invitation of the Academy of Science of the Royal Society of Canada. The national organizations that comprise PAGSE represent approximately 50,000 individual members from industry, academia, and government sectors. They work collectively to represent the Canadian science and engineering community to the Government of Canada, and to advance research and innovation for the benefit of Canadians. PAGSE is *not* a lobby group. It does not seek an audience in order to advance the cause of specific science and engineering initiatives. Rather, its intent is to address the broader issues of science and engineering policy at the national level. There are currently 26 members in PAGSE, including the CSPB. The CSPB representative to PAGSE is Malcolm Campbell (Vice-principal, Research, University of Toronto-Scarborough).

### SciencePages

SciencePages is a new initiative by PAGSE to provide short science and engineering briefing notes on topical issues for Canadian Parliamentarians. With the support of the Natural Sciences and Engineering Research Council (NSERC) and the Canada Foundation for Innovation (CFI), PAGSE undertook the pilot "proof-

of-principle" issue on the topic of biodiversity. PDF versions of issues can be downloaded from the SciencePages website <http://www.sciencepages.ca/index.html>.

SciencePages is written by a team of interns with backgrounds in science, policy and communications, and then reviewed by a multi-disciplinary team of experts in both the science and the policy related to the topic. PAGSE's goal is to see SciencePages, supported by both the PAGSE Executive and an Advisory Group to help set direction, become a fixture on the Canadian science-policy landscape as a quarterly publication.

### PAGSE Monthly Meetings

Guests, representing science and engineering in the government and industry sectors, are invited to monthly PAGSE meetings to present their perspectives on science and engineering in Canada, on the activities of their organizations, as well as the potential issues and challenges that they would like to see PAGSE address. Members also consider federal activities and reports and how best to promote and sustain Canada's scientific base. The meetings are held at the University of Ottawa. Natural Resources Canada, Innovation & Technology Sector, and Co-Chair, ADM Science & Technology Integration Board.



CSPB-SCBV Education Director, Anja Geitmann

## Education Director's Report

During the Annual Meeting of the CSPB in Edmonton, the Education Committee organized a symposium dedicated to a variety of topics related to teaching and outreach. Despite the timing of this symposium (early morning after the conference dinner), it was a great success with more than 60 people in the audience. This participation is indicative of the interest that the society members show towards education at all levels. The program of this symposium was as follows:

**Emily Indriolo** (UToronto): An Introduction to Planting Science – An opportunity for education and outreach for CSPP

**Shona Ellis** (UBC): Integrating Sustainability into a Biology Program: a work in progress

**Santokh Singh** (UBC): Evaluating the impact of new instructional strategies and assessment methods on student learning in an undergraduate plant physiology laboratory

**Lacey Samuels** (UBC) First Year Seminar in Science: an introduction to the writing and culture of science

The slides of the presentations will be made available in the Education Section on the CSPB site once this section has been transitioned to the new site. This transition will be made in December 2012.

### Education Symposium Speakers



Dr. Emily Indriolo



Dr. Shona Ellis



Dr. Santokh Singh



Dr. Lacey Samuels

CSPB-SCBV Treasurer, Harold Weger

## Draft of the New Constitution for the CSPB

The federal government's NFP Act states that all not-for-profit corporations must transition to new regulations by October 2014 (see: [http://www.ic.gc.ca/eic/site/cd-dgc.nsf/eng/h\\_cs03925.html](http://www.ic.gc.ca/eic/site/cd-dgc.nsf/eng/h_cs03925.html)). This Act contains a number regulations about what should, and should not, be in the Charter/Constitution and By-laws of an organization. As the CSPB is a not-for-profit corporation and also a registered charity, our new Charter/Constitution and By-laws must be approved by both the Charities Directorate of the Canada Revenue Agency and by Corporations Canada (which is part of Industry Canada). Corporations Canada has produced a Transition Guide to help organizations make the switch to the NFP Act ([http://www.ic.gc.ca/eic/site/cd-dgc.nsf/eng/h\\_cs04954.html](http://www.ic.gc.ca/eic/site/cd-dgc.nsf/eng/h_cs04954.html)).



I have produced draft copies of Form 4031 and Schedule I, which together with the Certificate of Continuance (which is issued by Corporations Canada) will form the new Charter/Constitution. The information in Schedule I is simply copied from the Corporations Canada website, and the information in Form 4031 is largely copied from the existing CSPB Inc Charter.

Lastly, I have produced a draft set of By-Laws. The new By-Laws were written with the following considerations in mind:

- To keep the spirit of the old By-Laws (in many cases I have simply copied and pasted).
- To ensure that the By-Laws do not contradict the NFP Act (this has led to some deletions).
- To make the terminology internally consistent (our current By-Laws have been written and revised over the course of many years, and there some minor inconsistencies). As well, as far as I can tell, we will no longer have an "Executive", but rather a "Board of Directors".
- That we currently have a Charter and By-laws for CSPB Inc, and a Constitution and By-laws for CSPB (the charity). These are combined into one document.
- To make the By-Laws consistent with existing practice.

These documents have been available for review on the CSPB website, and there have been invitations to the membership to comment on the documents; further comments are most welcome. The documents were also briefly discussed at the 2012 Annual Business Meeting in Edmonton. Updated versions of the documents, incorporating the comments, are periodically posted on the website.

Corporations Canada recommends that not-for-profit corporations that are also registered charities consult with the Charities Directorate of the Canada Revenue Agency about the Constitution and By-laws prior to submitting them for final approval by Corporations.

CSPB Past President and CSPB and Plant Canada GPC Delegate, Carl Douglas

## Global Plant Council Update



The Global Plant Council (GPC) was established in 2009 in Honolulu, Hawaii after the 2009 American Society of Plant Biologists Annual meeting, with the Convening Motion: "That we as representatives of plant science societies of the world formally establish a Global Plant Council to discuss and collaborate on solutions to global issues that impact the future of our world and humanity." See <http://www.globalplantcouncil.org/index.htm>. The CSPB is a founding member of the GPC, and hosted the First

Meeting of the GPC in Montreal in 2010 in conjunction with the joint CSPB-ASPB meeting held in July of that year. As of February of 2012, the GPC is officially registered as a not-for-profit organization with a home in Switzerland.

The 2012 Global Plant Council Meeting was held on October 27-28 following the International Plant Molecular Biology (IPMB) Congress and a joint symposium on October 26 with the Korean Society of Plant Biologists (KSPB), on Jeju Island, South

CSPB Past President and CSPB GPC Delegate, Carl Douglas

## Global Plant Council Update (continued..)

Korea. The GPC Meeting was hosted by the KSPB. Prof. Choon Hwan Lee, KSPB President, and his colleagues were wonderful hosts and provided great Korean hospitality in a bucolic setting among the orange groves and spectacular coastal scenery of this volcanic island off the south coast of Korea. I represented both the CSPB and Plant Canada at the joint KSPB-GPC Symposium and at the GPC Meeting.

During the IPMB Congress GPC organized a forum on 'A Plant Science Perspective on Major Global Issues' to raise the visibility of GPC among plant scientists. At the joint KSPB-GPC Symposium, several delegates presented overviews of the The Global Plant Council (GPC), and I presented a view of plant biology perspectives from a Canadian point of view, focusing on production from our land mass devoted to agriculture and forestry, issues facing these sectors, and opportunities and challenges for plant biology research funding in Canada. Similar perspectives were given by delegates from the US, China, Japan, Brazil, Finland, and Egypt (representing African plant biologists). Interestingly, funding for basic plant biology research was identified as a problem in most countries, with Japan being particularly hard hit in that country's recent science budget.

The two-day GPC meeting itself was very successful and good progress was made on most agenda items, including fundraising and moving to a stable budget, leadership (President, Executive, and paid Executive Director), and moving forward with immediate GPC priorities. It was unanimously agreed that during the next two years GPC must prove itself as a viable organization that achieves high international visibility, impact and credibility in advancing frontier plant research and breeding as solutions for global challenges. GPC now represents 29 member societies. Although not all member societies were able to send representatives to the Korea meeting, there was a quorum that made progress on the most issues.

Leadership and fundraising: GPC currently has sufficient funds from donations and membership as well as further funding prospects to hire a professional part time Executive Director in 2013. The position will be advertised immediately. The GPC will need an annual operating and management budget of USD 250,000 in order to work effectively with the member societies in advancing the GPC challenges, including public outreach and web visibility and this will be one of the key activities of the Executive Director in close collaboration with the Executive



GPC Korean BBQ dinner, Jeju, Korea. Some of the GPC delegates from (left to right) Switzerland, China, Japan, Korea, UK, UK and Finland enjoying traditional Korean hospitality (October, 2012).

Board. It was also agreed that an external President, to replace Acting President Wilhelm Gruissem should be recruited, and should be an individual with international stature and influence in the plant biology and credibility with national and/or international decision makers. Furthermore, an Executive of 6 members will be established from among GPC delegates, and each Society member will be asked to identify a GPC delegate that will serve a 3-5 year term and actively participate in the GPC, with the support of the member society.

GPC Challenges. Last year, GPC leadership identified nine challenges as priority areas of activity. Some member societies (European Plant Science Organization, EPSO; UK Plant Science Federation, UKPSF) have already successfully recruited several of their members to participate in challenge activities. It was agreed to push those Challenge activities that are more advanced, and to engage members from other societies in drafting of these and less advanced Challenge documents for wide distribution. An "A" list of GPC Challenges will be given priority to increase GPC credibility and visibility. All others ("B" list) will also be pursued as scientists from member societies make commitments to carry them forward. These initiatives are indicated below, with the names of those leading "A" list challenges.

GPC "A" list Challenges

- Digital Seed Bank (W. Gruissem)
- Biofortification of cereal crops and tubers (B. Pogson)

CSPB Past President and CSPB GPC Delegate, Carl Douglas

## Global Plant Council Update (continued..)

### GPC "B" list Challenges

- Increasing/enriching agricultural diversity
- Developing perennial rice/wheat/maize
- Development of medicinal plant-based products
- International information exchange
- Local-level diversity and yield stability
- Plant -environment metagenome
- Species information for sustainable adaptation capability to changing environments, including climate change

Interested individuals from member societies will be asked to help develop Challenge documents in these areas, with A list documents prepared within the next 6 months. Support for workshops and meetings to work on GPC challenges and strategies (e.g., production of white papers for global institutions) will require additional fundraising efforts. This will be one of the main duties of the Executive Director.

Increasing visibility with global institutions. It was agreed that the GPC must make efforts to take its agenda and activities to global institutions, such as World Bank, United Nations, FAO, CGIAR, African

Union, Global Crop Trust, etc. Some GPC member societies may already have contacts to global institutions that could be valuable for building closer ties and inform these institutions about the GPC mission and activities. For example, EPSO and FAO organized a joint workshop in June 2012 that is now spawning follow up projects on cassava, maize and legumes as well as underutilized fruits and vegetables. It was agreed to collect all contacts from all GPC member societies and develop an action plan for linking up with global institutions.

Next GPC meetings. The African Crop Science Society (ACSS), the Federation of European Societies of Plant Biology (FESPB)/ European Plant Science Organisation (EPSO) and the Brazilian Society of Plant Physiology (SBFV) have kindly offered to host the next GPC meetings, which were accepted and approved: 2013 - Cameroon (Africa, jointly with the ACSS meeting)  
2014 - Dublin (Ireland, jointly with the FESPB/EPSO meeting)  
2015 - Foz do Iguazu (Brazil, jointly with the IPMB meeting)

### News and Events

## CSPB/SCBV Annual Meeting 2012

The Annual Meeting of the CSPB/SCBV was held in Edmonton, Alberta, this past June (June 25-27, at the University of Alberta). It was also the first conference held under the new name of the Society, the Canadian Society of Plant Biologists/La Société Canadienne de Biologie Végétale (CSPB/SCBV). The three day conference featured four separate plenary sessions, with speakers from Canada, the United States and Europe, as well the newly-inaugurated C.D.Nelson Address, and the Gold Medal Address to round out the conference. There were

also several rounds of concurrent oral presentations (82 presentations in the concurrent sessions), an outstanding poster session (42 posters), and a special Education Symposium with four invited speakers. The conference opened with an update about the journal Botany, given by Dr. Bruce Dancik, editor-in-chief of NRC Research Press since 1990. Botany, along with the other journals of NRC Research Press, is now part of the not-for-profit corporation Canadian Scientific Publishing. As well, Botany is now an official journal of both the CSPB and the Canadian



*Conference chief co-Chairs Janice Cooke and Mike Deyholos, both from the University of Alberta.*

Botanical Association. The official opening of the conference included a welcome by Gregory Taylor, former Society President and outgoing Dean of Science at the University of Alberta.



## News and Events

**CSPB/SCBV Annual Meeting 2012 (continued.)****C. D. Nelson Address**

The C.D. Nelson Award is awarded in honour of outstanding research contributions by a plant biologist within the first 10 years of an independent research position. Beginning in 2010 there is a new tradition in the Society, in that the winner of the Award is invited to give the C.D. Nelson address at the Annual Meeting the next year.

The C. D. Nelson inaugural address was given by the 2010 winner Wayne Snedden at the 2011 Plant Canada Conference in Halifax.

*Just before the C.D. Nelson Address, Charles Després (bottom right) received the plaque for the 2011 C.D. Nelson Award from former Society President Carl Douglas*

**Gold Medal Address**

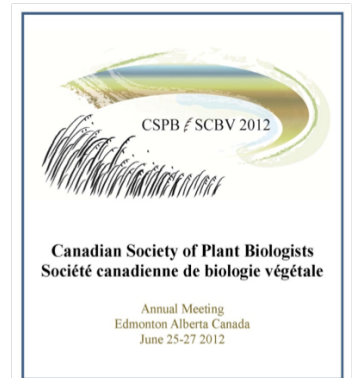
The CSPB Gold Medal Address is a longstanding tradition, where the previous years' Society (Gold) Medal winner is invited to deliver a talk at the next Annual Meeting. The 2011 winner of the Society Medal was Dr. Fathey Sarhan (Université de Québec à Montréal). Dr. Sarhan also officially received the Society Medal before the Address.

This was the final talk of the conference, and a great way to cap off a wonderful scientific event.

*Fathey Sarhan (left) officially received the Society (Gold) Medal from Carl Douglas just before the Gold medal Address.*

News and Events

**Annual Meeting ... (continued)**

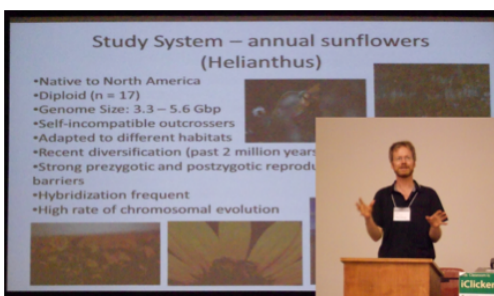


*Two Society (Gold) Medal winners in the hallway between sessions. Norm Hüner (left, 2010) and Fathey Sarhan (right, 2011).*

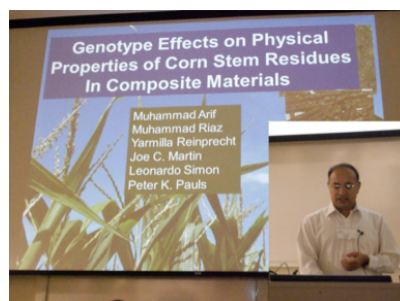


*Society President Bill Plaxton at the closing ceremony for the conference. Bill thanked Janice Cooke, Mike Deyholos and the rest of the organizing committee for organizing a superb conference.*

**Selected photos from plenary and oral presentations**



*Loren Rieseberg (University of British Columbia & University of Indiana) discusses the genomics of plant speciation.*



*Muhammad Arif (University of Guelph) describes the use of corn stem residues in composite materials.*



*Miki Fujita (University of British Columbia) talks about cellulose-synthase-complexes in plant cell walls.*



## News and Events

**Annual Meeting ... (continued)**

Selected photos from the banquet



## News and Events

**CSPB-SCPB Award Recipients**

**The Society Medal (The Gold Medal)—La médaille de la Société (Médaille d'or)**  
**FATHEY SARHAN**

**Département des sciences biologiques, Université du Québec à Montréal**



*Fathey Sarhan (left) officially received the Society (Gold) Medal from Carl Douglas just before the Gold medal Address.*

The CSPB's most prestigious award is the Society Medal, commonly referred to as the Gold Medal. The medal winner is invited to give the Gold Medal address at the following year's annual conference.

Dr. Fathey Sarhan is an outstanding scientist with an international reputation for his ongoing research in the fields of vernalization and the biological processes associated with the development of cold tolerance in plants.

Dr. Sarhan received his PhD in plant biochemistry in 1977 from the Université de Montréal, where he began his research aimed at understanding cold acclimation. He then worked for a short time as a research associate in the Département des sciences biologiques at the Université du Québec à Montréal and in 1978 he accepted a faculty position in the same department. Since that time, Dr. Sarhan has utilized a host of molecular and cellular approaches in his research to address many of the most critical questions in cold acclimation and vernalization that have placed him amongst the top echelon of international researchers in this field. His numerous (over 85)

research papers, invited reviews and book contributions are published in a range of journals, reflecting the breadth of his contributions, and he also holds an impressive level of research grant funding from multiple sources, including NSERC, Genome Canada, Genome Quebec, and the Canadian Foundation for Innovation. That Dr. Sarhan has gained international recognition and acclaim for his research is also apparent from the number of invitations he has received to present at prestigious international conferences and symposia.

## News and Events

**CSPB-SCPB Award Recipients (continued..)**

Dr. Sarhan has also been very active in terms of his commitment to the training of younger scientists (including numerous graduate students and post-doctoral fellows). Many of these individuals have since become eminent scientists in their own right.

Notably, Dr. Sarhan's leadership in research has been matched with a remarkable record of service to the national and international communities, including serving as a member of the NSERC Canada Research Chairs program, the provincial committee for Canadian Foundation for Innovation, the Green Crops Network and NSERC plant biology grant selection committee. He has also been highly active in the CSPB, serving as a Senior Officer of the Society and its Eastern Regional Director from 1991-1993, a member of the organizing committee for the 1988 annual meeting, and chairing the committee that organized the 32<sup>nd</sup> annual meeting.

In summary, Dr. Sarhan is a highly deserving candidate for the CSPB Gold Medal Award.

**2012 C. D. Nelson Award - Le prix C. D. Nelson 2012****MICHAEL DEYHOLOS****Department of Biological Sciences, University of Alberta**

*"The Award shall be given for outstanding research contributions to plant biology. Special consideration will be given to originality and independence of thought. Nominees shall have been in an independent, full-time research position for no more than 10 years."*



Mike Deyholos (left, University of Alberta) is the 2012 winner of the C.D. Nelson Award. The award was presented by former Nelson Award winner Gregory Taylor (right, also from the University of Alberta).

Since his recruitment in 2002 as a faculty member in the Department of Biological Sciences at the University of Alberta, **Dr. Michael Deyholos** has developed into an independent and innovative scientist and teacher while emerging as an international leader in his field of research. His research programme has been increasingly focused on the application of cutting-edge genomic technologies for the discovery of novel genes related to secondary cell wall formation in crops, as well as root responses to abiotic stress. Most notably, he is spearheading development of the flax genome sequence and other flax genomic resources. He has also developed genomic resources for a number of other plant species, most recently as co-PI in the 1000 Plant Transcriptomes Project. Michael has in turn used the genomic resources to identify genes contributing to fibre and cell wall development of flax and hemp. He has used similar approaches to pinpoint genes that mediate adaptive responses of roots to salinity, desiccation, or aluminum stress. Michael has published 49 peer-reviewed articles in prestigious journals such as *Plant Physiology*, *The Plant Cell*, *The Plant Journal*, and *Development*, with 36 of these being published in the last 5 years. He has also been invited to write review articles for leading journals such *Current Opinion in Plant Biology*, *Critical Reviews in Plant Science* and *Plant Cell and Environment*. Complementing his research achievements, Michael is a dedicated mentor and award-winning teacher. To date, he has graduated 8 PhD and 3 MSc students; all of these graduates have continued in science or related professional fields. Michael has also been an innovator in undergraduate research and teaching, having supervised a total of 26 BSc thesis research projects. Michael is the embodiment of a truly well-rounded academic, having excelled in research, teaching, and service. The CSPB/SCPB is delighted to honour Dr. Michael Deyholos as a very deserving recipient for the 2012 C.D. Nelson Award.

*Presented by Gregory Taylor, University of Alberta, 1995 winner of the award*



## News and Events

**CSPB-SCPB Award Recipients (continued..)**

**The 2012 Gleb Krotkov Award—Le Prix Gleb Krotkov**  
**HAROLD WEGER**  
 Department of Biology, University of Regina

*“The Award shall be for outstanding service to the Society, both in administration and in scientific contributions to annual meetings.”*



**Dr. Harold Weger** completed his PhD at Queen’s University while studying green algal carbon-nitrogen interactions under the supervision of David Turpin. This was followed by postdoctoral research with Robert Guy at the University of British Columbia, and recruitment in 1991 as a faculty member at the University of Regina. His first service position with CSPB began in 1997 as a member of the Board of Trustees of the Ann Oaks Scholarship fund. Harold played a key role in setting up the Oaks Scholarship Fund, the negotiations with Ann Oaks leading up to this, and the many discussions with financial consultants to come up with the best investment strategy. In 2003 he became the Chair of the Board of Trustees of the Oaks Scholarship fund, which continues to this day. He is

the longest serving Treasurer for our Society, having served in this crucial capacity since 2002. The past decade with Harold as our Treasurer reflects unparalleled efficiency and dedication regarding every aspect of this multifaceted position. This includes the significant amount of time and energy that he recently devoted to overcoming a host of administrative obstacles needed to officially enact the Society’s name change from CSPP to CSPB. As the long-standing ‘memory’ of our Society, he has a remarkable awareness of the wide breadth of activities needed to keep the CSPB running smoothly. Thus, Harold is frequently consulted by other CSPB executive members on many matters, whether or not they had anything to do with the finances of the Society. A dependable voice of reason, calmness, and wisdom around the Executive table, Harold has contributed broadly to the management of our Society’s affairs. He has always been quick to volunteer for any task. Many others have called on him for help and advice related to Society matters. For example, in 2008 Harold assisted Connie Nozzolillo in editing the history of the CSPP’s second 25 years. He has also played an important role at regional and national CSPB meetings where Harold and his students have regularly presented the results of their research on algal metabolism and iron acquisition. Harold has also arranged CSPB student travel awards, and prizes for winners of the President’s Award for best oral and poster presentations by CSPB student members. He has been a particularly strong advocate for the Society to invest in our student members, and has contributed to the Society’s strength in young scientists. The Canadian Society of Plant Biologists is delighted to present the 2012 Gleb Krotkov Award to Dr. Harold Weger.



*Society President Bill Plaxton (right) presented the Gleb Krotkov Award to Harold Weger (left, University of Regina).*

*Presented by William Plaxton, Queen’s University, CSPB President*

## News and Events

**CSPB-SCPB Award Recipients (continued..)****The 2012 David J. Gifford Award in Tree Physiology—Le Prix David J. Gifford en physiologie des arbres****ROBERT GUY****Department of Forest Sciences, University of British Columbia**

*"The Award will be given for outstanding research contributions in tree physiology, primarily in Canada. Special consideration will be given to originality and independence of thought."*



**Dr. Robert Guy** is this year's recipient of the David J. Gifford Award in Tree Physiology. In 1984 Rob completed his PhD at the University of Calgary under the supervision of David Reid. His PhD thesis involved the pioneering application of stable isotopes for characterizing the ecophysiological adaptations of prairie halophytes. This was followed by post-doctoral research with Joe Berry at the Carnegie Institute and Dave Turpin at Queen's University. Rob initiated his independent academic career in 1988 when he was recruited by the Faculty of Forestry at the University of British Columbia. At UBC he rose to the rank of Professor, and recently served as Head of the Department of Forest Sciences. While at UBC Rob has made consistent and extensive scientific contributions to the field of tree

physiology. He and his research team have integrated a wide array of innovative techniques to investigate fundamental features of tree physiology and applied aspects related to forestry. Rob's research projects and papers are substantial and insightful, and effectively weave together many tools and approaches extending from the molecular, through to whole-plant systems biology. He is highly respected as a collaborator, teacher, and mentor of young faculty members. In 2005 he was awarded UBC's Killam Teaching Prize for his exceptional delivery of courses such as Plant and Tree Physiology. Rob has also been an active member of our society, having previously served as CSPB's Vice-President and President. The plant science community regards Dr. Rob Guy as an outstanding tree physiologist, teacher, and mentor, and as a highly deserving candidate for CSPB's prestigious David J. Gifford Award.

*Presented by Stewart Rood, University of Lethbridge, 2004 winner of the award*



*Robert Guy (left, University of British Columbia) was presented the David Gifford Award in Tree Physiology by past winner Stewart Rood (right, University of Lethbridge).*

**Ragai Ibrahim Award for Best Student Paper- Le Prix Ragai Ibrahim pour le meilleur article rédigé par un étudiant****Glen Uhrig****Greg Moorhead's laboratory****Department of Biological Sciences, University of Calgary**

*"The Ragai Ibrahim Award Fund was established by CSPB/SCPB through a generous donation from Professor Ragai Ibrahim, eminent Canadian plant scientist and an emeritus member of the CSPB-SCBV. The purpose of the award is to recognize excellence in publication by graduate students. There is one award per year."*

The winner of the Ragai Ibrahim Award for best student paper published in 2011 is Glen Uhrig from Greg Moorhead's laboratory at the University of Calgary, for the article:

**R. Glen Uhrig and Greg B. Moorhead (2011) Two Ancient Bacterial-like PPP Family Phosphatases from Arabidopsis Are Highly Conserved Plant Proteins That Possess Unique Properties. *Plant Physiology* 157: 1778-1792.**

## News and Events

**CSPB-SCBV Award Recipients (continued..)**

This work represents major research findings of Glen's PhD project, which was initiated under the supervision of Dr. Greg Moorhead in September 2009. Prior to the publication of this article, knowledge of the functions or properties of the two bacterial-like phosphatases, designated the *Shewanella*-like protein phosphatases (SLP phosphatases), was non-existent. Using bioinformatics, Glen predicted that the two related enzymes (designated SLP1 and SLP2) are targeted to the chloroplast and cytosol, respectively. Glen integrated extensive bioinformatic, molecular biology, cell biology, and biochemistry/enzymology research tools to thoroughly characterize this pair of novel protein phosphatases from the model plant *Arabidopsis thaliana*. Following bioinformatic and evolutionary analyses he proved that SLP1 is chloroplastic, whereas SLP2 is cytosolic, by expressing and localizing RFP-tagged fusions of each isozyme in fava bean cells using fluorescence. By using specific antibodies, Glen examined SLP1 and SLP2 tissue-specific expression profiles via immunoblotting. Further, he employed kinetic studies to reveal the metal ion cofactor requirements, which allowed detailed comparison of SLP1 vs. SLP2 inhibition by various phosphatase inhibitors. In addition, he described the generation and analysis of SLP1 and SLP2 loss-of-function T-DNA insertional mutants. Glen's publication represents the first examination of this group of unique protein phosphatases that will be of broad interest for the plant biology and the wider signal transduction community.

Presented by William Plaxton, Queen's University, CSPB President



Glen Uhrig (left, University of Calgary) received the Ragai Ibrahim Award for best published article by a student. The award was presented by Bill Plaxton, CSPB President.

**Honourable Mention for the 2012 Ibrahim prize - Mention honorable pour le prix Ibrahim 2012**  
**LENKA PLAVCOVÁ**  
**Uwe Hacke's laboratory**  
**Department of Renewable Resources, University of Alberta**



The honorable mention for the 2012 Ibrahim prize goes to Lenka Plavcová, from Uwe Hacke's laboratory at the University of Alberta.

**Lenka Plavcová and Uwe G. Hacke (2011) Heterogeneous distribution of pectin epitopes and calcium in different pit types of four angiosperm species. *New Phytologist* 192: 885-897.**

This paper represents the graduate research work of Lenka under the supervision of Dr. Uwe Hacke. Lenka's research findings address two important questions about xylem conductivity: (i) do pit membranes of species with contrasting vulnerability to xylem embolism differ in their pectin content and/or the degree of pectin esterification, and (ii) can such differences explain the magnitude of the shift in vulnerability after calcium removal? Using electron microscopy, immunolabeling, an antimonate precipitation technique, and ruthenium red staining, Lenka observed two distinct chemical domains of intervessel pit membranes, the pit membrane margin (the annulus) and the actual pit membrane.



Lenka Plavcová (left, University of Alberta) was the runner-up for the Ragai Ibrahim Award. She was presented with a plaque by Bill Plaxton.

## News and Events

**CSPB-SCBV Award Recipients (continued..)**

While the annulus was rich in pectins and calcium, the opposite was true for the main part of the membrane. Lenka has proposed a new hypothesis in this paper that shifts in xylem vulnerability may be linked to pectin distribution. The findings of this paper advance our understanding of the chemical composition of pit membranes and its role in xylem functioning.

*Presented by William Plaxton, Queen's University, CSPB President*

**President's Awards 2012 CSPB-SCBV Annual Meeting**

*Dylan Silver (left, University of Calgary) won the Presidents' Award for best student poster. The award was presented by former CSPB President Gregory Taylor.*



*Kenneth Ellens (University of Florida) was the co-winner of the Presidents' Award for best student oral presentation. The award was presented by former CSPB President Gregory Taylor. The other co-winner, Trinh-Don Nguyen (University of Calgary), was unable to attend the ceremony.*

## CSPB-SCBV Awards/Committees

**Nominations for CSPB Awards/Candidatures pour les prix de la SCBV**

**The C.D. Nelson Award in Plant Biology**  
**Le Prix C.D. Nelson en Biologie Végétale**

Start preparing your nominations for the 2013 C.D. Nelson award from CSPB. Nomination packages should include an up to date CV for the candidate and a support letter briefly describing the research program, and why the nominee is worthy of the C.D. Nelson. Please send this information to the 2013 C.D. Nelson chair (Greg Moorhead) by email

([moorhead@ucalgary.ca](mailto:moorhead@ucalgary.ca)). The deadline for submission is March 31, 2013. The award will be announced at the 2013 CSPB meeting in Quebec City on June 25-28, 2013. A complete description of the CD Nelson award is given below. Candidates can be nominated from all areas of plant biology.

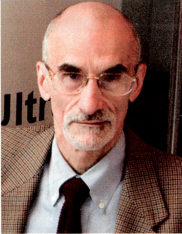
The award shall be given for outstanding research contributions to plant biology. Special consideration will be given to originality and independence of thought.

Nominees shall have been in an independent, full-time research position for no more than 10 years.

Le Prix sera décerné pour des contributions exceptionnelles à la recherche en Biologie végétale. Une considération spéciale sera accordée pour l'originalité et pour la créativité des travaux. Les candidats devront avoir dirigé leur propre programme de recherche à plein temps depuis moins de 10 ans.



## External Events

**2012 ASPB Award Recipients with Canadian Connections****Charles Reid Barnes Life Membership Award  
Andrew Hanson - University of Florida**

The Charles Reid Barnes Life Membership Award, ASPB's oldest award, was established in 1925 and honors lifelong service in plant biology. This year's honoree is Andrew Hanson (University of Florida, Gainesville), a long time CSPB member, who is recognized for his unique and multifaceted contributions to plant biology, his exemplary use of comparative genomics approaches to deepen our understanding of plant metabolic pathways, and his research in the areas of folate biosynthesis and biofortification.

**Dennis R. Hoagland Award  
Mary Lou Guerinot - Dartmouth College**

The 2012 Dennis R. Hoagland Award, which honors Hoagland's contributions and leadership in plant mineral nutrition, is given to Mary Lou Guerinot (Dartmouth College), a Canadian citizen, for her seminal contributions to the field of iron nutrition, work that has revolutionized our understanding of iron's uptake, long-distance transport, and distribution to subcellular compartments, as well as iron deficiency signaling pathways in plants.

## News and Events

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## External Events

**Upcoming Meetings**

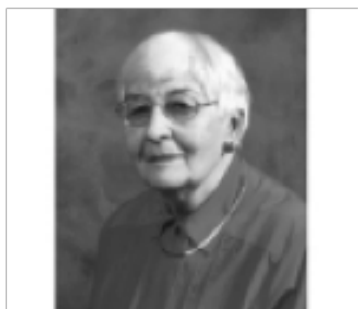
**2013 Western Regional Meeting  
August 25-27 2013 Loon Lake Research & Education Center, Vancouver**

The next Western regional conference will take place in 2013. We are planning to have the meeting at the end of August (25-27), at the beautifully located Loon Lake Research & Education Centre (<http://www.loonlake.ubc.ca/index.htm>), located in the UBC Malcolm Knapp Research Forest, some 40 minutes away from downtown Vancouver. The centre offers not only conference and food services but also various social exercises such as canoeing, rock climbing and rappelling, and not to forget, guided tours in the research forest and relaxing walks in ancient Western red cedar forests. In addition to research presentations, we also plan to offer a mini workshop on the application of next generation DNA sequence technology for purposes ranging from rapid cloning of mutants in *Arabidopsis* and other species with a sequenced genome, to genome-wide analysis of differential gene expression in any plant species, regardless of available genomic resources. A more detailed announcement will be made at the meeting.

**2012 Eastern Regional Meeting & Plant Development Workshop  
November 30 - December 1 2012 Wilfred Laurier University, Waterloo**

The 2012 Eastern Regional Meeting has now taken place, a full report will be forthcoming in the next issue of the CSPB/SCBV Bulletin.

## News and Events

**Obituary****Prof. Alina Walther**

Long-time Society member Alina Walther passed away on May 1, 2012 at the age of 88. Alina was born in Ukraine, and was caught up in the events of the Second World War. During the war she eventually found her way to Germany, and in Germany she took various courses in Chemistry and Economics at several universities. She eventually immigrated to Canada, and settled in Montreal. In Montreal she graduated with a B.Comm. degree from Sir George Williams University (now part of

Concordia University), and followed this up with a B.Sc. degree. Alina then completed a M.Sc. (1963) at McGill University in plant ecology, and followed this with a PhD from the Botany Dept at the University of Toronto in 1968 (working on the senescence processes in sunflower leaves).

Alina joined the Biology Dept at the University of Regina in 1967. She officially retired in 1991, although she continued to pursue research for a number of additional years. Her research interests lay in the areas of plant ecophysiology and plant anatomy (in the latter work she collaborated with the noted plant anatomist the late Dr. M.V.S. Raju). Her teaching was mainly in various aspects of plant biology and plant ecology, and she was noted for her encyclopedic knowledge about prairie plants.

Harold Weger (University of Regina), with additional notes from Dr. William (Bill) Quick (University of Regina)

## CSPB-SCBV Membership

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*one vacancy*

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Carl Douglas .....CSPB-SCBV Past President

Harold Weger .....CSPB-SCBV Treasurer

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Lauren Erland, Zerihun Demissie.....Bulletin Editors

Photos used in this bulletin are courtesy of Anja Geitmann, William Plaxton and Harold Weger.

**We welcome comments and suggestions for future issues of the CSPB-SCBV Bulletin.**

**Please send correspondence to [communication@cspp-scpv.ca](mailto:communication@cspp-scpv.ca)**

**The next issue of the Bulletin will be Winter 2013.**