



# UBC Department of Botany Newsletter

Number 7 January – December 2011

*Edited by Iain Taylor*



## WELCOME

Welcome to the 7<sup>th</sup> edition of the UBC Botany Department Newsletter. 2011 was truly the Year of the Changes, although UBC is now home to the only Botany department in Canada. We welcome a new Head, **Lacey Samuels**, who took over from **Fred Sack** in July. Almost all Faculty and Staff have moved their offices at least once, except for the Department Office. The West Wing of Biological Sciences has been completely renovated to accommodate research for both Botany and Zoology. The Herbarium and Systematics researchers of all kinds have moved to the Biodiversity Building (along Main Mall). The North Wing is mostly devoted to teaching labs and offices. The South (formerly Zoology) Wing has also been totally renovated to house research and offices for both Departments.

When you come to UBC, it may help to bring a GPS system. It may help you navigate and find us! More than ever, visits to the Beaty Museum and to the Botanical Garden (now back in the Faculty of Science after an absence of more than 40 years) are essential!

Research and teaching are flourishing and there has been considerable national and international recognition of our achievements. The Biodiversity Research Centre and Beaty Biodiversity Museum are now fully up and running.

Thanks to all who fed me news during the year, particularly to the now retired Judy Hayes and Veronica Oxtoby, in the Department office, who have prepared and circulated **Botany This Week**. I keep my ears open, but appreciate all efforts to keep me informed.

We keep reducing the Department's 'lost contact list', but please let me know of any who mention that they are not in contact with us. E-mail circulation

of the Newsletter, seems to work, but including pictures can make downloading slow and even impossible for some. So please let me know if you know of any alum (student, staff or faculty) who cannot receive e-mail.

I continue my preparation of the Botany Department history. I am beginning to collect oral stories with my digital recorder, so don't be surprised to hear from me to gather your story and reminiscences. In particular I seek material from those of you who graduated before 1972. The plan remains to have both the *One Hundred Years of UBC Botany* and *One Hundred Years of Science at UBC* ready for 2015/2016, which is the centenary year of the first formal degree programs at UBC.

Please take a few minutes to send me your reminiscences. In particular, please send me a list of the people whom you remember and what you are doing now. Each reminiscence makes my searching of the university's records that bit easier. Send letters and pictures via snail-mail or send e-mail correspondence to me at: [botany.alumni@ubc.ca](mailto:botany.alumni@ubc.ca) or even by telephone (604) 822-0416.

*Iain Taylor*

## HEAD'S MESSAGE

In summer 2011, I became the new Head of the Botany department, the first female Head of Botany although women make up about 40% of our faculty and more than 50% of our undergraduate population. Botany consists of 26 research faculty members and 13 instructors for a total of 39 faculty members, with 16 of these people cross-appointed in other UBC units including Michael Smith [biotechnology] Laboratories, Zoology, as well as Earth and Ocean Sciences. Our researchers continue to make exciting

contributions in the areas of cell and molecular biology; biodiversity exploration; functional and evolutionary genomics; molecular evolution and systematics. We are now the last remaining Botany department in Canada and we are proud of our organismal diversity with research on protists, fungi, algae, and vascular plants. Our researchers are housed both in the new Biodiversity Research Centre, adjacent to the Beaty Biodiversity Museum, and the newly renovated West and South wings of the Biological Sciences Building. The Herbarium is a key feature of the Beaty Biodiversity Museum, along with the complete skeleton of a Blue Whale, that has become a local landmark. We welcomed two new molecular biologists in 2011, Jae-Hyeok Lee who studies sexual development of green algae and plant-pathogen researcher Yuelin Zhang. We are also looking forward to the arrival of two new ecologists in 2012: Canada Research Chair Amy Angert, who studies factors determining plant ranges, and Jedidiah Brodie, a specialist in plant population-level ecology and plant-animal interactions. Other exciting news includes Roy Turkington leading a group of senior undergraduate students on a field trip to Kenya this May. In addition, graduate student training has become the focus of two research networks in Biodiversity and Plant Cell Walls, funded by NSERC's Collaborative Research and Training Experience (CREATE) grants.

The Biology curriculum has undergone a substantial revision in the past five years. The Carl Weiman Science Undergraduate Initiative is providing Science Teaching and Learning Fellows to work with faculty members to develop and test effective teaching strategies. Shona Ellis is now the Associate Head of Biology, working to implement curriculum revisions, coordinating with the Weiman Initiative and creating a "sustainability in biology"

curriculum. During the curriculum reform process, there was strong consensus to maintain our organismal biology courses, including the second year survey courses and the third year algae, bryophytes, fungi, and vascular plant taxonomy. The laboratory rooms in the Biological Sciences core are scheduled for renovation this summer to provide higher quality space for students to experience biodiversity in a hands-on setting. While technologies such as websites and “clickers” are great for large lectures, there is no substitute for experience and part of our curriculum reform includes new laboratories in cell and molecular biology as well.

It is an exciting time to be a Botany department. We have great students, a vibrant graduate student and post-doc community, and internationally recognized research with increasing recognition of the relevance of our work in areas such as biofuels and sustainability.

**Lacey Samuels, Professor and Head**

## DEPARTMENT NEWS

**Lacey Samuels** (PhD, 1989 Baisalputra lab) began a five-year term as Botany Department Head on July 1, 2011. She is the first female Head and the third who is “one of our own”.

Dean Simon Peacock wrote, “I am looking forward to working with Lacey to advance botany education and research at UBC. Dr. Samuels is internationally recognized for her cell and molecular biology research that is focused on plant cell walls. Lacey is a longstanding member of the Department of Botany who has made many valuable contributions to the Department, the Faculty of Science, and UBC, including playing a leading role in our efforts to create First-Year Science Seminars for undergraduate students and BIOL 535, a graduate course in pedagogy and practical advice for life science teaching.

“I would like to express my sincere thanks to **Fred Sack** for his leadership of the Department of Botany over the past five years. Thanks, Fred!”

On July 1<sup>st</sup>, after 43 years the **Botanical Garden** returned to the Faculty of Science. The 3 Faculty members in the Centre for Plant Research, **Quentin Cronk, Keith Adams, and Sean Graham**, now hold full time appointments in the Department. The Botanical Garden and the Beaty Biodiversity Museum are now directed by **Patrick Lewis**, who is the Director of the UBC Biodiversity Collections.

The Botany Department triumphed yet again at the **Curling Bonspiel**, with a bit of help from Forestry and Biodiversity!

The **Biological Sciences Building West Wing, South Wing and the link between the Core and the South Wing** have been renovated and were officially opened on August 29, 2011. Changes are massive and Alumni may wish to see before believing. Your humble editor now shares Woody Coward’s old office!

**Jack Maze** has published a book entitled *History, Personal and Poetic*. iUniverse. Bloomington, IN. A poetic exploration of history, human and natural, real and fictional, the nostalgic, the melancholy and the inspiring. Available through Amazon.com at \$10.

The 2010/11 **Vladimir Krajina Lecture** was presented by **Martin Lechowicz**, McGill Univ., whose title, “Predicting dominance and diversity in plant communities along environmental gradients”, would have pleased Dr. Krajina.

The 2011/12 lecture was presented by **Bill Freedman**, under the title, “Ecological Carbon Credits and the Conservation of Natural Areas.”

**Shona Ellis**, MSc (Towers lab) was appointed as Associate Head for Biology.

**Roy Turkington** gave lectures to more than 700 high school students during visits to Jingdong and Ailoshan, China.

## AWARDS

**Nancy J. Turner** (PhD, 1973), a Distinguished Professor at the University of Victoria, received Honorary degrees from Vancouver Island University in March 2011 and from UBC in May 2011.

These awards recognize her enormous contributions to understanding the pivotal role of plant resources in past and contemporary aboriginal cultures and languages, as an integral component of traditional knowledge systems, and how traditional management of plant resources has shaped the landscapes and habitats of western Canada. She now holds one of the very prestigious Tula fellowships that will support her continuing work with First Nations on Vancouver Island.

**George Haughn, Santokh Singh and Sunita Chowrira (L-R)**, each received a Killam Teaching Prize in recognition of excellent teaching.



**Patrick Keeling and Wayne Maddison** were elected as Fellows of the Royal Society of Canada.

**Joerg Bohlmann, Quentin Cronk and Carl Douglas** were elected as Fellows of the American Association for the Advancement of Science. They join other illustrious UBC Fellows of the AAAS: **Fred Sack** and **Loren Rieseberg**.

**Curtis Suttle** (PhD, 1987) Professor, Botany and Earth and Ocean Sciences and Associate Dean of Science, was awarded the Timothy R Parsons' medal in Multidisciplinary Ocean Sciences by Fisheries and Oceans Canada. Curtis was the 8th recipient.

**Geoffrey Wasteneys'** Tier 1 Canada Research Chair was renewed for a second 7-year term. The award provides the University with \$1.4 million and also will enable the acquisition of a new Total Internal Reflectance Fluorescence Microscope system.

**Patrick Keeling** and Zoologist Sarah Otto (Director of the Biodiversity Research Centre) were among five Canadian researchers recently awarded prestigious Guggenheim Fellowships.

Patrick was recognized for his research on the role of coral reefs in apicomplexan parasite origins.

**Philippe Tortell** (Botany and Earth and Ocean Sciences) was awarded a UBC Killam Faculty Research Fellowship from the "Izaak Walton Killam Memorial Fund for Advanced Studies."

**Jörg Bohlmann** (Botany and Forestry) for being named as an author publishing the most influential science in *Plant Physiology* or *Plant Cell* by the American Society of Plant Biologists (ASPB)!

**Dr. Helen Kennedy**, Honorary Research Associate in the Dept. of Botany and Honorary Curator of Vascular Plants in the UBC Herbarium from 1998-2003 received an Outstanding Achievement Award from the Society of Woman Geographers. She is only the 34<sup>th</sup> winner of the award in the Society's 85 year history.

**Cameron Carlyle** won the Canadian Botanical Association Stan Rowe Prize for the best paper by a graduate student in Ecology published in 2010. His co-authors are **Lauchlan Fraser** and **Roy Turkington**.

**Tess Grainger** (Turkington Lab) received a \$15,000 *W. Garfield Weston Award for Northern Research* (Master's Programs) from the Association of Canadian Universities for Northern Studies (ACUNS).

**Jenny McCune** a graduate student in Botany and the Beaty Biodiversity Centre (Velland lab) received a Killam Graduate Teaching Prize for her outstanding teaching especially in the first year Science Communication course. Lacey Samuels, who became Head of Botany on July, 1<sup>st</sup> had a major role in developing this course.

All in all, 2011 was a banner year for botanist teachers.

**Eric Johnson** for being selected as a recipient of a 2010-2011 Biology Graduate Student Teaching Award.

Mandy Lindeberg and **Sandra Lindstrom** (MSc, 1973; PhD, 1985) received an award from the National Association of Government Communicators (US), in the Soft/Hardcover book category (content

and design) for their book *Field Guide to Seaweeds of Alaska*.

**Robin Young** (Post Doctoral Fellow and Sessional Instructor) had two of her images recognized in the 2011 Nikon Small World Photomicrography Competition. She placed 4<sup>th</sup> for her confocal microscopy image of intrinsic fluorescence in the leafy liverwort, *Lepidozia reptans*. Her confocal microscopy image of gemma of the thalloid liverwort, *Lunularia cruciata*, won an Image of Distinction Award. The images can be seen at <http://www.nikonsmallworld.com/gallery/year/2011/4> and <http://www.nikonsmallworld.com/gallery/year/2011/115>

The *Lepidozia* image will be a part of Nikon's outdoor art exhibition at the Annual Science Festival in March and April of 2012 in Edinburgh. The festival website is:

<http://www.sciencefestival.co.uk/>

An image by **Robin** and **Kevin Hodgson** (technician in the BiImaging Facility) was on the cover of the October issue of *Biotechniques* (<http://www.biotechniques.com/BiotechniquesJournal/2011/October/>).

**Olivia Shi** (Directed Studies student with **Santokh Singh**) won the Top Presentation Award at the UBC Multidisciplinary Undergraduate Research Conference in March 2011. Her oral presentation was entitled "*The Effects of Hormonal Regulation on the Longevity of Fresh-Cut Chrysanthemums*".

#### **Undergraduate Award winners in 2010-11 were:**

Not available at time of press.

#### **Graduate Award winners in 2010-2011 were:**

**Jan Janouskovec** awarded the **Edith ASHTON Memorial Scholarship** (for an outstanding graduate student whose topic of research is in the field of marine or freshwater botany).

**Ying Chang** awarded the **George Bror BOVING Memorial Prize** for an outstanding student in Botany.

**Kaeli Johnson** and **Oliver Dong** awarded the **Frances CHAVE Memorial**

**Scholarship in Botany** for two students entering first year of an M.Sc. or Ph.D. program in **Botany**.

**Jamie Leathem** awarded the **Samantha HICKS Memorial Prize**.

**Allen Liu** awarded the **Craig Adams SANDERCOCK Memorial Prize**.

**Jessica Lu** awarded the **Vladimir J. KRAJINA Scholarship in Plant Ecology**.

**Yoshi Watanabe** awarded the first **Botany and Zoology Research Award** for outstanding undergraduate research by students in the Botany or Zoology Departments.



### **SPOTLIGHT ON BOTANY RESEARCH**

Most faculty members continue to be very competitive in the operation of their research. Renewal of **Geoffrey Wasteneys** Research Chair funding and election of several colleagues to national and professional honour groups were external recognition of personal successes. Everyone seems committed to finding new equipment, different funding sources, and above all recruiting new and outstanding graduate students who as we all know do much of the research in the Department. The international diversity of the Post-doctoral fellows is a sure indication of the department's worldwide recognition.

Information is incomplete, but 2011 saw many excellent publications.

**Beverley Green** and **Tony Glass** still maintain strong research groups and continue to gather strong external funding.

The very successful **annual BGS symposium** was held on April 8<sup>th</sup> and included a range of talks and posters. **Dr. Quentin Cronk** was the Keynote Speaker. The organizers (Heather McFarlane, Teagen Quilichini, Elahe Esfandiari and Catalin Voiniciuc) found sponsorship from Mt. Baker Bio, BIO-RAD, Botany, and the Canadian Botanical Association.

**Botany Techinar Series**, in which graduate students and others share their technical advances, and the **BRITE Workshops** continue to provide strong informal support of the latest ideas and methods. The wide range of **Departmental seminars** attract large audiences. The long-standing and well established “**Exit Seminars**” provide a valuable opportunity for students who have almost finished their research to tell what they have been doing during their time at the Department.

A paper by **Chris Ambrose** and three others (**Wasteneys lab**) entitled, “A Protein That Bosses Plant Cells Around”, was featured in the **New York Times**.

**Chris Ambrose** (Wasteneys’s lab) created a rate-my-professor styled website for researchers to rate their experience publishing with specific journals, so that people can check if that journal is good or bad to deal with during publication. See [www.ratescientificjournals.com](http://www.ratescientificjournals.com) (still in beta phase, but ready for reviews).

**Iain Taylor’s** publishing workshop, “So! It’s Time to Publish a Paper!” attracted the usual range of graduate students from across campus. In 18 years approximately 800 people have completed the program.

The **NSERC CREATE Working on Walls (WoW) project** was launched in 2009 and is led by Brian Ellis (PhD, 1969). It is a six-year training program focused on graduate student and postdoctoral training in an interdisciplinary, collaborative, and international environment. The scientific focus of WoW is the biosynthesis of plant cell walls and the practical implications of cell wall research. Including a wide array of transferable professional skills. The project held a symposium focusing on various aspects of plant cell wall research and featured presentations (talks and posters) from grad students and post-docs from UBC and from collaborating institutions. The keynote speaker was Simon Turner (University of Manchester).

The **2<sup>nd</sup> Annual Schofield Bryoforay** “**Hunt for the Nuggest Moss**” was hosted by the UBC Beaty Biodiversity

Museum and held on June 10-12 in Kamloops.

For those interested in the Department’s thesis history, **Graduate theses are now digitized** and are held at the UBC Library.

## TEACHING

Members of the Department are much involved in teaching – see Awards. Department colleagues seem to have a ‘hold’ on Teaching prizes, and the Living Lab project has developed and performed several short interactive theatre sketches in difficult classroom situations.

The undergraduate **Botany Enthusiasts Club** held a “Meet the Prof’s Night” that provided an excellent opportunity for Botany Department faculty members to share and even demystify the secret lives of the researchers.

**Gary Bradfield, Eric Jandciu, and Rob DeWreede** have developed a first year sustainability science course (SCI 120, Topics in Sustainability Science 1.0 credit) that Gary will teach starting in January 2012. The course will consider the science behind some of the major sustainability challenges facing our society.

Department members (students, staff and faculty) have been involved in several teaching initiatives, some old, some new and some experimental. These included: “Presenting Your Research, Navigating Your Final Doctoral Exam”; “So! It’s Time to Publish a Paper!”; “Plant Growth Training Workshops”; “From Academic Researcher to Commercial Writer”.

## COMINGS AND GOINGS

**Judy Heyes**, Secretary in the Botany Office for over 20 years has retired. She leaves very big shoes to fill. Thanks for everything. Now enjoy a well-earned retirement Judy!

**Catherine Young and Stewart Begley (aka Irish Leprechaun)** both from UBC Staff Finder’s, filled Judy’s position.

**Iris Fung** (Finance Clerk) left in August to join the Faculty of Forestry.

**Andrea Moerman** filled the position until **Rhonda Goodman** took up the permanent position late in 2011.

**Mami Nomura**, a M.Sc. student from Tsukuba University spent two months in Beverley Green’s lab. She is a student of **Ken-Ichiro Ishida**, who was a postdoctoral fellow in the Botany Department for five years, and is now a Professor at Tsukuba.

**Satoshi Sekimoto** (PDF, Berbee Lab) left the Department of Botany at the end of August.

**New Faculty Member** - On December 1<sup>st</sup>, the Department welcomed **Dr. Yuelin Zhang**, Assistant Professor in Botany from the National Institute of Biological Sciences in Beijing. Yuelin studies plant pathogen interactions using molecular genetics and he will be teaching in both of these areas.

**Dr. Xia Ke**, Kunming Institute of Botany, China spent Sept – Dec. 2011 with Roy Turkington’s group.

## RECENT GRADUATES



### May, 2011 Congregation

#### PhD

Apurva Bhargava (Ellis/Douglas Labs)  
Christopher Buschhaus ( Jetter Lab)  
Jun Huang (Haughn Lab)  
Natalia Kolosova (Bohlmann Lab)  
Isidro Ojeda Alayon (Cronk Lab)  
Chris Sears (Whitton Lab)  
Qingning Zeng (Ellis/Chen Labs)

#### MSc

Sandra Keerthisinghe (Sack Lab)  
Xuguang Liu (Sack Lab)  
Ranga Nandanavanam (Glass Lab)

#### BSc (Major Plant Biology)

Chloe Dierkes  
Susana Edgar  
Prasad Munusamy  
Dylan Rawlyk  
Thomas Ross  
Alison Marshall

### November 2011 Congregation

#### PhD

Shawkat Ali (Bakkeren/Li Labs)  
Ying Chan (Graham Lab)

Sung Soo Kim (Douglas Lab)  
Shao-Lun Liu (Adams Lab)

## MSc

Gregory Baute (Adams Lab)  
Jaclyn Dee (Berbee Lab)  
Peter deKoning (Turkington Lab)  
Patrick Gannon (Xin Li Lab)  
Rebecca Guenther (Martone Lab)  
Ruonan Yao (Jetter Lab)

## ALUMNI NEWS

**Nancy J. Turner** (PhD, 1973), a Distinguished Professor at the University of Victoria, received Honorary degrees from Vancouver Island University in March 2011 and from UBC in May 2011.

**Note: You will find more detailed information on Dr. Turner under the 'AWARDS' section above.**

**Marg Shand**, a technician in Clayton Person's genetics group from the mid-1960's to the early 1970's, is now retired and living in Salmon Arm, BC, and spends time "making pottery, writing, drawing editorial cartoons and learning how to herd sheep with my two border collies."

**Dave Adamson** (BSc, 1976) is Owner and President of Adamson's Heritage Nursery in Langley, BC.

**Andrew McDougall** (PhD, 2004) is an Associate Professor of Integrative Biology at University of Guelph and was one of 58 authors of a paper in published *Science*. *Science* 333:1750-1753.

**Gavin Kernaghan** (BSc 1991, MSc 1993, PhD, U. of A., 1998) is an Associate Professor of Biology at Mount Saint Vincent University where he is Director of the Atlantic Root Symbiosis Lab. He is also an Adjunct Professor at St Mary's University, and Dalhousie Univ., Halifax.

**Kim Ryall Woolcock** (BSc, 2006) lives on Saltspring Island and is baking bread and writing about it (see *Globe and Mail* Section L8, October 28<sup>th</sup> 2011).

**Paul Gabrielson** (PDF, 1985) is now at the Univ. of North Carolina Herbarium. He gave the Botany Department seminar while on a visit to UBC in April 2011.

**Terry McIntosh**, PhD, gave several talks presenting an overview of 'what's happening' in field botany in BC including some of the issues surrounding conservation of rare plant species, and biodiversity-critical habitats.

**Louise Glass**, formerly on faculty in Botany and the Michael Smith Laboratories, returned to UBC to give a seminar in September. She is now a Professor, Plant and Microbial Biology at the University of California, Berkeley.

**David Walker** and **Shona Ellis** were Student Procession Graduation Marshals. **Paul G. Harrison** presented the graduates.

**Taylor A. Steeves** (1926 – 2011, Plant Morphologist and truly a renaissance man) was not a UBC alumnus, but he had an enormous influence on Canadian Botany both as a scholar and a journal editor. He edited both *Botanical Gazette* and the *Canadian Journal of Botany*. Jack Maze asked if he'd like to come to UBC to give a seminar to which Taylor said, "Never did like the mountains. They cut off the view."

## ALUMNI CLEANINGS FROM UBC ARCHIVES 60 YEARS AGO

**Kay Beamish** graduated with an MSc degree in 1951. Her first degree was from Agriculture at UBC. She obtained a PhD from the University of Wisconsin and returned to UBC, where she taught taxonomy and became Director of the Herbarium when Tomm Taylor retired.

**Margaret Elizabeth Barr** graduated with an MA in October 1951. Her thesis on 'Pyrenomycetes of British Columbia' was the start of a long distinguished career in mycology. She was based at the University of Massachusetts. She died in Sidney, BC in 2008. An obituary was published in *Mycologia* 101(2): 281-83 March/April 2009.

## 50 YEARS AGO

The 1961 Congregation programs listed the following graduates:

### MSc

**Gyorgy Laszlo Lesko**,

**Thesis:** Ecological Study of Soils in the Coastal Western Hemlock Zone.

### Laszlo Orloci,

**Thesis:** Forest Types of the Coastal Western Hemlock Zone.

In 1965, Laszlo joined the University of Western Ontario and is now an Emeritus Professor of Statistical Ecology.

### Carol Aileen Rosemary Zanan

**Thesis:** A Cytomorphological Study of *Pelvetiopsis limitata* (Setchell) Gardner.

### John Gerard Noel Davidson

**Thesis:** A Nutritional Study of Grand Fir and Amabilis Fir in the Greenhouse.

### Gyula Karoly Kiss

**Thesis:** Pollen Analysis of a Post Glacial Peat Deposit in Vancouver.

### Donald E. LaBerge

**Thesis:** The Effect of 3-amino-1,2,4-Triazole on the Uptake, Retention, Distribution and Utilization of Labelled Phosphorus by Young Bean Plants.

**BSc graduates with Honours in Botany** in May 1961 were:

### Ronald James Buchanan

**Jean Clare Hammond**, winner of the Vancouver Natural History Society Prize.

**Frederick Alexander Young**, winner of the Armstead Prize.

To receive an email version of future newsletters or to send us any news, personal or professional, as well as news of other alumna and friends of the department with whom you are in touch, especially those who graduated in the pre- and immediate post-WWII eras, please contact us at: [botany.alumni@ubc.ca](mailto:botany.alumni@ubc.ca) In particular, we need addresses and e-mail contacts so that we can remake connections that have been lost over the years.

Please note the **NEW Alumni email address in the box above.**

(Previous email address was [botalum@interchange.ubc.ca](mailto:botalum@interchange.ubc.ca) which is no longer in use).

