



# UBC Department of Botany Newsletter

Number 8 January – December 2012

Edited by Iain Taylor



## WELCOME

This 8<sup>th</sup> issue of the UBC Botany Department is late mainly because your editor has had to dredge a little harder than before. Nevertheless the Department's weekly newsheet, "Botany this Week" has been a source of ongoing events and a few Alumni have 'reported in'. My goal this year has been to complete the first draft of the Department's history and while I have much UBC information, I now need much more from Alumni. Please take a little time to answer my three key questions:

What brought you to UBC?

Who were your contemporaries (faculty, students, staff), and how did they influence you?

Where have you been since you left.....if indeed you did leave?

But surely the big news must be that one of the Department's own, Shona Ellis, has been appointed UBC's first Professor of Teaching. I think that this may be a first anywhere!

CONGRATULATIONS!



Shona Ellis, Professor of Teaching

Iain Taylor

## HEAD'S MESSAGE

2012 was an exciting and busy year in Botany with new Assistant Professors Amy Angert (ecology), Jedediah Brodie (conservation biology), and Yuelin Zhang (plant defense) joining the department. The two NSERC graduate training

CREATE grants, 'Working on Walls (WoW)' and 'Biodiversity Research: Integrative Training & Education' are in full swing with enhanced graduate student training and opportunities. For example, WoW sponsored an 'Ecological and Functional Plant Anatomy' workshop in June, where graduate students were dazzled by plant structural diversity under the guidance of Adjunct Professor Jack Fisher and Emeritus Professor Jack Maze. The development of new undergraduate protistology, cell, and molecular biology laboratories and the transition to the newly revised undergraduate Biology curriculum have occupied many faculty. We have been assisted in this work by Teaching and Learning post-doctoral fellows from the Carl Wieman Science Education Initiative. I'd like to echo Iain's congratulations to Professor Shona Ellis, as she exemplifies the outstanding achievement in teaching, educational leadership and innovative contributions.

Memory and Walter Lewis, two UBC alumni, received an Honorary Ph.D. in May for their collaborative ethnobotanical contributions. On their trip, we invited them to Botany and enjoyed hearing the stories of their UBC days, especially the day in 1952 when they met in the Biological Sciences building. The exciting news is that Walter will donate type specimens of his two newly-identified *Rosa* species (*Rosa canadensis* and *Rosa x britannicae-columbiae*) to the Herbarium and a display in the Beaty Biodiversity Museum over Alumni Weekend, May 25<sup>th</sup>, 2013 will honour him.

The Botany website was revised this year, thanks to our IT manager Sean Shang and his staff. We have included a 'Past Faculty' page with biographies of many of the former members of the department

<http://www.botany.ubc.ca/people/past->

[faculty](#). Special thanks to Jim Pojar and Jack Maze who recently contributed a lovely and fascinating biography of Kay Beamish. Any alumni with memories of their supervisors who would like to contribute to this page are welcome to contact me at [lsamuels@mail.ubc.ca](mailto:lsamuels@mail.ubc.ca). We are so fortunate to have resident historian Iain Taylor, who is always ready to dive into the files in the sub-basement storage room, on fact-finding missions. When the Dean of the Faculty of Science is proudly promoting Science's 50<sup>th</sup> anniversary, I remind him that Botany is nearing our 100<sup>th</sup> anniversary and still going strong.

Lacey Samuels, Professor and Head

## DEPARTMENT NEWS

2012 was an excellent year for UBC Botany (now the last surviving Department of Botany in Canada) in research, teaching and an increased public face. Details are elsewhere in this Newsletter, but the **Canadian Green Building LEED Gold Award** for the renovated Biological Science complex and **Shona Ellis'** appointment as UBC's first Professor of Teaching must stand as the year's unique achievements.

The **Botanical Garden** finally returned to the Science fold after almost 45 years languishing in the President's Office and the Faculty of Land and Food Systems (formerly Agriculture). The University is making some efforts to present all of its Museums, living and dead, as a public outreach package. Watch out for changes!

The **Annual Botany Curling Bonspiel 2012** provided entertainment and serious competition from the "Granite Gardeners", invaders from the Botanical Gardens who took the prize again!, with team members David Grieser, Andrew Riseman (LAFS), Daniel

Mosquin, and Tony Maniezzo. Well Done!!

**Roy Turkington** broke another athletics record. In February 2012 he became the BC Indoor 60 Meters sprint champion and BC Indoor Long Jump champion (new BC record) in Kamloops. In the BC Senior Games at Trail, he also won the 100 metres and Long Jump in his age group.

**The Beaty Biodiversity Museum held a Public lecture every 1<sup>st</sup> Sunday** of the month. Each provided a chance for each different biodiversity researcher to compete for public affection for their groups and the public cast their votes for the coolest organism.

[http://www.beatymuseum.ubc.ca/event\\_s](http://www.beatymuseum.ubc.ca/event_s)

### History Project – 100 years of Botany at UBC

The history project is progress is moving well. In November, Iain Taylor presented a departmental lecture entitled, “100 years of Botany at UBC - where do you think we have come from?” Attendance was encouraging and he has a few more contacts with former faculty, graduate students and staff.

**Iain’s CRY FOR HELP reminds you that,** “Making sense of the many boxes stored in the basement is a long, but interesting job. Frankly many records and letters should have been destroyed long ago, but they weren’t!

*I have received UBC Ethics Review Board approval to interview individuals who I understand have interesting information that may provide verification or falsification for various departmental myths! So I urge all of you to send me a short note about your time in the Department. Names of your colleagues and information about their post-Botany Dept. times will be most welcome. If this project achieves its goals, Botany will have a valid record of its past and of the successes that have brought us to our present high esteem in the worldwide Botanical community.”*

Dr. Jill Johnstone, University of Saskatchewan, presented the 2012 Krajina Lecture, on “Mechanisms of resilience in boreal forest: interactions

*between fire, climate and vegetation composition.”*

This was particularly timely as a new biography of Dr Krajina was published in 2012. Reviews of the book have appeared/or will soon in BC Studies, the Vancouver Sun, Davidsonia, the Botanical Garden research journal, and in The Canadian Botanical Association Bulletin.

### GENERAL UBC STUFF

**UBC Housing Action Plan** Many readers will remember when almost everyone lived off campus...well things are a changing, indeed may have changed. The Community Planning Task Group of the UBC Board of Governors has developed a Housing Action Plan for the Vancouver campus...and there is much action!

Totem Park has doubled in recent years, a huge development is growing at the Wreck Beach end of University Blvd, market housing is complete along West Mall, a small Hospice is under construction just north of Thunderbird Stadium, the forest west of 16<sup>th</sup> Avenue is replaced by the all-new Wesbrook Village., University Hill High School will soon be moved to West 16<sup>th</sup> just west of Wesbrook Village, and the Theological Colleges along Chancellor Boulevard colleges are almost surrounded by townhouses, condos and more student residences.

### AWARDS

The **Biological Sciences Complex** at UBC has received a prestigious **Canadian Green Building Award** presented through Sustainable Architecture & Building Magazine. The LEED Gold Complex was one of only seven projects nationwide that received awards from a total of fifty-six submissions. The jury commented, “As a renovation this project set the design team the more challenging goal of revitalizing an unprepossessing existing building. Most striking was the use of an innovative solar tracking daylighting system, a courageous application of a new technology...”

<http://www.actonostroy.ca/projects/bsc/>

**Jarnail Mehroke**, teaching lab technician, received a **UBC President’s**

**Award for Excellence** recognizing his work in Plant Physiology labs and training science fair students in their projects. He received a gold medal, \$5,000, a certificate and formal recognition during the UBC Vancouver Congregation ceremony in May, 2012.

**Paul G. Harrison**, Associate Dean of Science, was awarded the 2012 UBC **Margaret Fulton Award** for his outstanding contributions to student development in the Faculty of Science. This annual award is given to an individual who has had a significant positive impact on student life and student development at UBC.

**Keith Adams**, Associate Professor, won a Killam Faculty Research Fellowship, an award that allows full-time faculty members to devote full time to research and during a recognized study leave.

**Loren Rieseberg** (Professor) was awarded the 2012 Darwin-Wallace Medal by the Linnean Society of London. The Medal recognizes exemplary contributions to the field of Evolutionary Biology.

**Patrick Keeling** was elected a Fellow of the American Academy of Microbiology.

**Shona Ellis** has been promoted to **Professor of Teaching**. This is a new rank at UBC and Shona's brilliant teaching was used to define the criteria for this rank. To see more of what Shona has been up to, visit:

<http://blogs.ubc.ca/shonaellis/>

**Memory Elvin-Lewis (BA 1952) and Walter Lewis BA (1951, MA 1954)** each received Honorary Degrees during the graduation ceremony on May 28<sup>th</sup>. They were recognized for their lifelong contributions to several aspects of Ethnobotany. Their son Lance graduated in Botany in 1978.

**Iain Taylor** was awarded a Fellowship in the “Association of Professional Biology of British Columbia.” Membership in the Association allows each member to use the title of Registered Professional Biologist (RPBio). Iain was a founding member of the Association (Membership #6) in 1980, **was one of the group** who wrote the first By-laws and Code of Ethics, and served on the College of Applied Biology’s Discipline

Committee for 15 years until he retired in 2011.

**Beverley Green, Patrick Keeling, and Geoffrey Wasteneys** were named as **Fellows of the American Association for the Advancement of Science (AAAS)**. They were recognized for their contributions to photosynthesis, evolutionary biology and plant cell biology. A total of 702 individuals were recognized in 2012 for their contributions to all areas of science.

**Zoology Graduate Teaching Assistants** Cosima Porteus and Gwylim Blackburn won Biology Graduate Student Teaching Awards. Three outstanding Botany Graduate students, **William Harrower, Vivienne Lam** and **Jessica Lu** received Honorable Mentions

#### **Undergraduate Award winners in 2011-12 were:**

**Sarah Amundrud** awarded the **Botany and Zoology Research Award** for outstanding undergraduate research by students in the Botany or Zoology Departments.

**Teaghan Mayers** awarded the **Vladimir J. KRAJINA Prize in Plant Ecology**.

**Emily Lomax** awarded the **E. Bruce TREGUNA Prize in Plant Physiology**.

**Karina Spoyalo** awarded the **Jean Davidson ARNOLD Memorial Prize**.

**Verity Pringle** awarded the **Adam F. SZCZAWINSKI Prize in Botany**.

**Teale Dunsford** awarded the **CLEMENTS-NORRIS Memorial Prize**.

**Averee van der Linde** awarded the **Thomas M.C. TAYLOR Prize in Botany**.

**Lauren Coombe** awarded the **Clayton PERSON Memorial Prize in Biology**.

#### **Graduate Award winners in 2011-2012 were:**

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

**Heather McFarlane** awarded the **George Bror BOVING Memorial Prize** for an outstanding student in Botany.

**Greg Baute and Yoshi Watanabe** awarded the **Frances CHAVE Memorial Scholarship in Botany** for two students entering first year of an M.Sc. or Ph.D. program in **Botany**.

**Joanna Bernhardt, (Zool)** awarded the **Samantha HICKS Memorial Prize**.

**Will Iles** awarded the **Kit Malkin Scholarship** for a student with an outstanding record in the **biological sciences**.

**Christine Verhille, (Zool)** awarded the **Craig Adams SANDERCOCK Memorial Prize**.

**Alice Garani and Kathleen McGrath** awarded the **Vladimir J. KRAJINA Scholarship in Plant Ecology**.



### **SPOTLIGHT ON BOTANY RESEARCH**

**Dr. Xin Li** (Botany and Michael Smith Labs) was an invited speaker at the 77<sup>th</sup> Cold Spring Harbor Symposium from May 30-June 4, 2012.

**Dr. Beverley Green** (Professor emerita) was a co-author (one of 30, including Dion Durnford former member of Beverley's group) of a paper in *Science* on Feb 17, 2012 that described work that pointed to the origin of photosynthesis in algae and plants.

**Jacques Dumais** (MSc with Chemistry Prof. and Botany Associate Member, Lionel Harrison) continues the Schofield and other influences from his time at UBC. Jacques is now an Associate Professor of Organismic and Evolutionary Biology at Harvard. His paper, entitled "The Fern Sporangium: a unique catapult" was published in *Science* on March 16, 2012.

**Dr. Joerg Bohlmann** (Botany and Michael Smith Labs) made the 'big' newspapers with his discovery that cis-abienol, from fir trees, can be used as a replacement for ambergris as a fixative in high end perfumes. A gene from *Abies balsamifera* is more efficient and less expensive than using 'whale spit'.

**The Department co-sponsored the 2012 Plant Cell Walls Mini-symposium** with the Michael Smith Labs, and the "Working on Walls" CREATE project. Invited speakers came from CSIRO Plant Industry – Black Mountain, Australia; SLU – UPSC, Umeå, Sweden; and the Michael Smith Labs.

The Annual **Botany Graduate Students' Symposium** once again encouraged our graduate students to present their work as a poster or a talk, and there were cash prizes for the best presentations! The Keynote speaker was Dr. Brian Ellis, whose title was "A Long and Winding Road".

**The UBC Herbarium** in 2012. In May there was the **Grimmia Workshop** presented by Roxanne Hastings, Curator of Botany at the Royal Alberta Museum. *Grimmia* is one of the most diverse and abundant groups of moss to grow in western North America.

The imaging project, "**A Legacy of the Flora of British Columbia: Digital Archiving and Presentation of the Preserved Plant Collections of John Davidson (1878 – 1970)**" was finished. This was funded by the Irvine K. Barber History Digitization Grant. John Davidson established both the UBC Herbarium and Botanical Garden. This collection is one of the earliest collections of British Columbia Flora. Everyone can now view these digitized records on-line, <http://herbie.zoology.ubc.ca/~botany/herbarium/search.php?db=vwsp.fp7>, just put 'Davidson' in 'Collector' search box.

Further funding from the Barber fund will allow digitization for 2012-2013 to digitize the Davidson Correspondence between Davidson and his volunteer collectors between 1912 and 1940. The project should be finished by 2016, the Herbarium's and Garden's century anniversary. The local operation of the e-based program in Canadian systematic botany (Canadian University Biodiversity Consortium) that was located at the Botanical Garden, has been reduced in size and is continuing in its smaller form at the Herbarium. Rumour has it that the Herbarium continues as a den of romance, with matrimony in the wind once again!

**Jeannette Whitton**, Director of UBC Herbarium is the Vascular Plants subcommittee Chair on the federal government's COSEWIC (Committee on the Status of Endangered Wildlife in Canada). She led a group assessing progress on **Canada's Species at Risk Act (SARA)**, and with several colleagues, as well as graduate students taking a Special Topics course, have recently published on the work.

A new genus of yeasts with seven species (*Bandoniozyma*) has been proposed in honour of the late Dr. Robert (Bob) J. Bandoni. Bob was a professor in the UBC Botany Department from 1958 to 1989 and maintained an active interest in botanical and fungal pursuits until his death in 2009. Details at: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0046060>

The transfer of the Botanical Gardens from the Faculty of Land and Food Systems (formerly Agricultural Sciences) to the Faculty of Science is now more or less complete. The Carolinian Forest at the UBC Botanical Garden was established a few years ago and is now maturing well. All kinds of small research and teaching opportunities and projects are just waiting to be done, not to forget that the Garden is open to visitors at all times when the gate to the parking lot is open. The forest has twelve individual groves, each named for an early North American plant explorer. These groves were planted with trees and shrubs representing hundreds of different species. Some of the more well-known examples you'll find in our forest include species of *Liriodendron* (tulip poplar), *Magnolia*, *Acer* (maple) and *Rhododendron*. To view recent photos of this garden please visit our [Flickr](http://www.flickr.com/photos/ubcgarden/sets/72157627974991869/) website at: <http://www.flickr.com/photos/ubcgarden/sets/72157627974991869/>. More information on the Carolinian Forest can be found on the Garden's [website](http://www.botanicalgarden.ubc.ca/carolinian-forest-garden) at: <http://www.botanicalgarden.ubc.ca/carolinian-forest-garden>.

## TEACHING

**Celeste Leander**, won a UBC Killam Teaching Prize. Celeste carries on Botany's proud tradition (8 winners in the past 10 years!).

**Shona Ellis**, is now Professor of Teaching and Associate Head of the Biology Program. She was featured in an article in the May 1<sup>st</sup> issue of the Vancouver Courier by Naoibh O'Connor. Shona has developed an outreach program with the Vancouver School Board which was reported under the headline, "Scientists partner with elementary school teachers and their students". Web details were at:

<http://www.vancourier.com/PHOTO+GALLERY+STORY+University+science+program+taps+young+brains/6548868/story.html#ixzz2JJGZhiaf>

## COMINGS AND GOINGS

**Dean Emeritus of Science, Cy Finnegan**, died on 30 January. Dean Finnegan was a professor in Zoology, who pioneered the UBC Biology program and the Province-wide processes of Biology Articulation that gave many students transfer credit to build their degrees first at UBC, UVic, and SFU and currently all the universities across the Province. He never seemed to forget the responsibility of professors in all the institutions to put students first. He was an alumnus of Notre Dame University and perhaps naturally became an assistant coach to the UBC Thunderbird Football team under the late Frank Gnuq.

**Dr. Chris Marchant** (formerly Research Scientist in the Botanical Garden and Associate Professor in Botany) died on December 10<sup>th</sup> 2012. Chris did the early work using plants to stabilize the cliffs between the President's House and what is now the site of Green College. He left UBC in the early 1970s to operate an ecological consulting business in the Slokan Valley.

Master's student in biological engineering (Meriadeg Hervieux) from Polytech Clermont-Ferrand in France, spent a 3-month summer placement in Sandra Lindstrom's (PhD, 1985) lab.

Past visitors worked with Neil Towers and Iain Taylor.

## RECENT GRADUATES

### May, 2012 Congregation

#### PhD

Allan DeBono (Samuels Lab)  
Hannes Dempewolf (Rieseberg/Cronk)  
Hardy Hall (Ellis/Douglas Labs)  
Nyssa Temmel (Cronk Lab)  
Tabea Weihmann (Xin Li Lab)

#### MSc

Eric Abbott (Bradfield Lab)  
Robert Lee (Bradfield Lab)  
Wei-Wan Scott Laing (Kunst Lab)  
Steven Henstra (Bradfield Lab)  
Catalin Voiniciuc (Haughn Lab)

### November, 2012 Congregation

#### PhD

Cameron Carlyle (Turkington Lab)  
Julia Nowak (Cronk Lab)  
Eric Johnson (Wasteneys Lab)

#### MSc

Laura Anderson (Martone Lab)  
Elahe Esfandiari (Haughn Lab)

#### BSc (Major Plant Biology)

Lynn Cummings  
Teale Dunsford  
Adrianna Marshall  
Scott Russell also majored in English Literature

## ALUMNI NEWS

In January 2012, **Dr. Terry McIntosh** (PhD, Schofield) presented a lecture entitled "The State of Field Botany in British Columbia". After the lecture Terry led an hour-long discussion on what can be done at UBC (via faculty & grad students, the herbarium, the garden and E-Flora BC) to coordinate improving field botany in BC. Terry is a fiery advocate for more field work especially as consulting biologists in BC are perhaps a little inclined to gloss over taxonomic accuracy. We need more like him!!

**Keith Wade** (BSc, MSc) spoke to Nature Vancouver, on "Gondwana legacy - a botanical look at Chile", and **Rosemary & Terry Taylor** spoke on "The wandering

Taylor's in New Zealand". Keith retired from Capilano College some time ago, but he seems in perpetual motion. Terry still contributes to the Herbarium.

**Andy MacKinnon (MSc, Bandoni)** also spoke to Nature Vancouver on what we've learned over the last few decades about relationships between BC's plants and fungi, and their implications for forest ecology. Andy is the Regional Ecologist with the Ministry of Forests in Nanaimo, BC and is best known as a co-author of the popular handbook *Plants of Coastal British Columbia* and has written and contributed to many scientific and technical papers.

**Gary Lewis (MSc, 2004 Bradfield)** gave one of the 2012 **Vandusen Gardens - Cedar Lectures**: under the title "Hellebores - Jewels of the Winter Garden". Gary owns Phoenix Perennials Nursery, 3380 No. 6 Road, Richmond, B.C., which is famous for its annual Hellebore Hurrah! Weekend which draws hundreds of gardeners to one of the largest selections of Hellebores offered in North America. In this presentation you'll learn about the botany, ecology, and distribution of hellebores as well as their history in western gardens and the complex breeding required to arrive at the stunning array of modern forms. Gary will tour you through the best of what's available today and speak to new directions in breeding.

**Ben Anderson**, (BSc Hons, Plant Biology 2010) recently completed an MSc in plant taxonomy at the University of Edinburgh. He is now pursuing a PhD at the University of Western Australia and the King's Domain Botanical Garden in Perth. Some guys get all the luck, we look forward to hearing more of Ben's work.

**Zora Modrusan**, (PhD/PDF) is working with Genetech and gave an excellent presentation on the real world under the title "Finding Science Outside of Academia: Opportunities in Biotech/Pharma Industry".

**John Laurie**, (PhD, 2008 Bakkeren/Xin Li) tells us that he spent a few years in Arizona doing a Postdoc with Brian Larkins and is now a Senior Research Associate with the title of "Botanist" at

the University of Nebraska in Lincoln. He is studying epigenetics in relation to environmental stresses, and how epigenetic reprogramming occurs and is passed between generations. He hopes to get a job in Canada in the near future. Hopefully he received the letter confirming his PhD from UBC and will be "back home" soon.

### **BIG REQUEST!!**

**As your Newsletter Editor I am always glad to keep up to date on botanical activities of all our alumni – so all of you who are busy using your experiences at UBC to keep active in some kind of science....just send the details to me at:**

[iain.taylor@botany.ubc.ca](mailto:iain.taylor@botany.ubc.ca)

## **ALUMNI CLEANINGS FROM UBC ARCHIVES**

### **60 YEARS AGO**

The **Wesbrook Building** was opened on May 15, 1952 by the Premier.

**British Columbia Cancer Institute** was opened in October, 1952.

#### **MA graduates included:**

**Margaret Elizabeth Barr** (BSc, UBC Biology and Botany, Plant Pathology Option) who completed her thesis entitled: "Pyrenomycetes of British Columbia."

#### **BA graduates included:**

**Clifford Anastasiou, John Bancroft** and **Memory Elvin (Hon. DSc 2012)**. **John Bancroft** won the Armstead prize. **Nancy Joan Wallick** won the Edith Ashton award and **Robert McMinn** and **Clifford Anastasiou** received National Research Council Awards.

### **50 YEARS AGO**

#### **PhD graduates included:**

**Slavoj Eis**, (Krajina group) Thesis: "Statistical analysis of tree growth and some environmental factors of plant communities in a selected area of the coastal western hemlock zone".

#### **MSc graduates included:**

**Samuel Akintobi**, Thesis: "Cytomorphological Study of *Prosiola* on

Meridional Is".

**Philip Jowett** (D.J. Wort lab) Thesis: "A study of the possible protection afforded by copper. Ferrous and ferric ions against the actions of 2, 4-dichlorophenoxy acetic acid".

#### **MA graduates included:**

**Joseph Alexander**, Thesis: "A Study of Certain Fungi Associated with Dwarf Mistletoe Infections and Their Relation to the Moisture Content of Western Hemlock".

#### **Other awards included:**

**Louis Druehl** won The Edith Ashton Memorial Scholarship, \$250 and a University Graduate Fellowship.

**Robert Brooke, Laszlo Orloci**, and **Everett Peterson** received National Research Council Studentships, \$2400 each: Robert and Laszlo retired as professors from SFU and Western Ontario respectively, and Everett's book, "*Ecology and Management of Sitka Spruce*" is listed as available from UBC Press.

**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.**

