



UBC Department of Botany Newsletter

Number 5 January – December 2009

Edited by Iain Taylor



WELCOME

I hope that this edition, the 5th, of the UBC Department of Botany Newsletter will reach you in early March 2010. At that time, the Winter Olympics will be over and UBC students will have returned from a 2-week Reading Break.

Hardly had the Department paid tribute to Wilf Schofield (at a Memorial Service on May 9th) when we had news that Bob Bandoni and Thana Bisalputra had died. Bob's and Thana's families held a combined Memorial for them in September. The attendance at both these events, reminded us of the enormous affection and respect that we and the national and international botanical community felt for these three giants of Botany. Brief obituaries for Bob and Thana follow, but no words can really tell the impact that each of these scholars had on UBC as well as their chosen research and teaching fields.

Surely the development that has thrilled us all has been the emergence of the Biodiversity Research Centre and Beaty Museum of Natural History. Just as those of the old guard will remember 'The Huts', the next generation will be long in debt to Tony Sinclair for his vision that UBC would become a centre for biodiversity research in North America and the world. As construction was underway, it seemed most appropriate that UBC should confer an Honorary Degree on Buzz Holling, another of the founders of the community that put UBC ecology on the map. It did seem odd however, that someone forgot to show Buzz that the huts were gone and that the building was under construction!

The UBC Botany Department has flourished in 2009 and most, if not all, of 2009 successes and contributions are recorded below. The University celebrated the centenary of its charter in 2008, but most teaching and research did not start until 1915. There are no survivors of those who established the arboretum at the Colony Farm with John Davidson, but there may be someone who remembers the move to Point Grey.

If you do remember or know someone who does, please let me know so that I can better document the early days of UBC Botany. I am making slow, but steady progress to prepare a departmental history as well as a short history of Science at UBC. I am happy to report that I have a few letters and e-mail memories from former faculty, and students, but I always need more. I look forward to hearing from you where ever you are. Just tell me when you were here, whom you knew and please share your reminiscences. Send letters and pictures to the Botany department via snail-mail or send e-mail correspondence to me at botalumn@interchange.ubc.ca ; or even by telephone (604-822-0416)

Iain Taylor

IN MEMORIUM

Robert (Bob) Joseph Bandoni



Professor Emeritus Robert (Bob) Joseph Bandoni passed away peacefully on May 18, 2009 at Mountain View Manor Extended Care Unit in Ladner, B.C. Bob was born November 11, 1926 in Weeks, Nevada to Giuseppe and Albina Bandoni, and graduated from high school in Hawthorne, Nevada. He earned degrees from the University of Nevada at Reno and the University of Iowa, before joining the faculty of the Department of Botany at the University of British Columbia in 1958. Following his retirement from the Botany Department in 1989, Bob maintained an active presence both within the Botany Department and in the wider mycological community. He is survived by wife Alice-Ann (Webb) of 20 years, daughter Susan (Thomas) Muench of Geneseo, New York, stepsons Danai (Angela) Bisalputra and Rabin

Bisalputra, and sisters Margaret McGhie of Nevada, Evelyn Smith of Illinois, and Mary (Frank) Fahrenkopf of Virginia. Predeceased by wife Inger (Van Nostrand) of 30 years, and siblings Estelle Perry, Grace Bandoni and Alfred Bandoni.

A celebration of Bob's life was held at the UBC Botanical Garden on September 13, 2009.

As a biologist, Bob was drawn to strange, diverse, and inconspicuous basidiomycete fungi. He was both a superb naturalist and an attentive scientist. By searching in places where no one else looked, he found many of the 'duck-billed platypuses' of the fungal world, fungi with astonishing and unexpected combinations of characters that helped reveal patterns of early fungal evolution. Although never much interested in mushrooms Bob was hired at UBC as a mycologist and as mycologists were expected to be authorities on mushroom identification, Bob fulfilled this duty with grace by helping to found the mushroom club, the Vancouver Mycological Society, back in the 1970's and by writing the first field guide to identification of B.C. mushrooms, *Guide to Common Mushrooms of B.C.*, published by the Provincial Museum, in 1976.

Jack Maze noted, "It was always pleasant to encounter Bob. In the hall, he could extract the glumness from a typical day in academia with humor or just an irreverent comment, often in more colorful language than is commonly heard in the halls of academe. In meetings, Bob... usually kept his own counsel, aside from private remarks on various things, some of them germane to the meeting. His opinions were based on a combination of knowledge and experience, things at which Bob excelled."

Of Bob's papers, 71 appear in the Web of Science. He always had an experimental bent and some of his most highly cited papers were on culturing and staining techniques, elucidation of mating systems, and studies of spore

dispersal. In the textbook chapters he wrote on fungi and slime molds, Bob had a knack for providing clear and interesting text, as well as answers to student questions that are missing from most other texts, such as 'How fast do slime molds move?' (Ans: ~2 mm per hour). Bob was the first author of most of his papers and sole author of many. He had active and successful students but on principle, declined authorship on student papers. Of his co-authorships, several originated from collaborations with Neil Towers in studies of metabolites of fungi.

Thana Bisalputra



Thana Bisalputra passed away peacefully on June 13, 2009 in Surrey, British Columbia. He is survived by his brother, Thanit; his sister, Rasana; his sons Danai (and wife Angela) and Rabin; grandson, Jonathan; ex-wife, Alice-Ann; and several nieces and nephews in Thailand. His life was celebrated on Sunday September 13, 2009 at the UBC Botanical Garden

Dr. Bisalputra was born January 6, 1930 in Thonburi, Thailand, the youngest of seven children. He earned B.Sc. (Hons.) and M.Sc. degrees from the University of New England in Armidale, Australia, and a Ph.D. from the University of California, Davis, where he worked under the supervision of Professors Katherine Esau and T.E. Weier. His thesis work provided him with training in electron microscopy, and he came to UBC to establish a program in electron microscopy and modern cytology. He was exceptional at both the technical and interpretive aspects of cytology. His research area was algal cell structure but he had broad interests in Cell Biology including studies of cell structure in vascular plants and animals. Over the years, he published papers with his colleagues at UBC including J.R. Stein, F.J.R. Taylor, R.J. Bandoni and G.N.H. Towers and had a long and productive collaboration with N.J. Antia, of the Fisheries Research Board in West Vancouver. He taught Introduction to Cytology (Biology 200) and advanced Cell Biology (Biology 340), which was an intensive and stimulating synthesis of

animal, protist, fungal and plant cell biology. He retired in 1989.

He was a talented photographer and carpenter. Although he loved the beauty of the west coast, he also missed his native Thailand.

DEPARTMENT NEWS

The Biodiversity Centre is built, operating and almost ready for the arrival of the Museum Centre piece, the Blue Whale skeleton moved from the east coast, cleaned and to be installed into Spring of 2010.

In what his former high school teacher must surely feel is a case of unintended consequences, **Patrick Keeling** (Professor) wrote a letter to the Editor of Science, entitled "*Creationists made me do it*" (Science 325: 945, Aug 21st 2009), explaining how a dogmatic creationist set Patrick on his research career as an evolutionary biologist.

Kathy Nomme, Shona Ellis, Carol Pollock and Ellen Rosenberg, Instructors in the Biology Program, traveled to the Galapagos Islands to celebrate the 150th anniversary of Charles Darwin's, 'Origin'. No major publications emerged from their trip, but their images and stories of the amazing flora and fauna encountered reminded us of the benefits of being a biologist.

Greg Bole, an Instructor teaching Evolution, Ecology, and Genetics in the departments of Zoology and Botany, has joined the internationally known group of talented thespian scientists. Greg presents his characterization of a young Charles Darwin, naturalist, explorer, reluctant revolutionary and exponent of "The Origin of Species by Means of Natural Selection" and tells the story of his life and works in his own words. Recent performances were sponsored by VanDusen Gardens and at UBC by the Beaty Museum. Greg received his Ph.D. in Ecology and Evolution from Stony Brook University. He has worked in the Biology Program at UBC for 7 years and was awarded the 2007/08 Faculty of Science Killam Prize for Excellence in Teaching. Greg started acting when he was 12 years old and continues it as a hobby. He has been portraying and speaking about Charles Darwin for the past four years on the radio, and to public groups, classes and conferences in a wide variety of locations.

PhD student **Jennie McLaren** (Roy Turkington's lab) had an interview with Cheryl Kawaja on CBC North, August 27th, 2009 morning show about her eco/biodiversity research in the Yukon. Charles Krebs' Yukon project continues and flourishes after more than a decade.

The long tradition of ethnobotanical research at UBC continues with the Botanical Garden release of a booklet on the History of Medicinal Plants. It doubles as a guide to the Botanical Garden's *Physic Garden* and is available in the Garden gatehouse for \$4.95.

Social activity is a major part of the Department's life – It was not always so!

The Botany Enthusiast Club (BEC) hosted its second 'Meet the Profs and Grad Students Night' that provided faculty members and graduate students from Botany, Forestry, and related departments/faculties to spend an evening to chat and to get acquainted in a casual environment. Representatives from UBC Farm, the Botanical Gardens, the Herbarium, and other related groups provided brief introductions about their own groups. Some lab researchers brought posters and gave brief talks about them.

The Botany Graduate Students Association once again organized the weekly Summer BBQ lunches, (including a performance by "**Tree-O**" who are an impromptu assembly of classically trained and seasoned performers playing a mix of classical and contemporary music), the Pumpkin Carving Contest and the Annual Christmas Party. All great opportunities to find out who really does work in Botany! One highlight was **Garnet Martens** (BioImaging Facility) organized his annual BBQ and headshaving in support of the Weekend to End Breast Cancer

The Botany soccer team "**Botany FC**" won 2nd place in the GSS summer league, and **Jorg Bohlmann's** team "Try and Pass us!" won the ½ Ironman Relay in The Subaru Vancouver International Triathlon on July 12th, 2009.

The Botany Curling Bonspiel 2009 ended with a clear and convincing

victory for "Scotts on the Rocks", with team members George Haughn, Ljerka Kunst, Lebyy and Mike Balakshin. It seems that challenges from Physics and the Botanical Garden have finally been overcome.

AWARDS

Lacey Samuels won one of the 2008/9 Faculty of Science Killam Prizes for Excellence in Teaching. In addition Lacey is developing an exciting mentorship program for graduate students that has attracted serious interest from other departments.

Graduate students, **Gillian Gile** and **Chris Sears**, were recipients of 2008/2009 Faculty of Graduate Studies, Graduate Teaching Assistant Teaching Awards. These annual awards recognize graduate students who have made an outstanding contribution to teaching and learning at UBC.

Two of Botany's own won service Achievement Awards from the Faculty of Science for 2008/2009. Congratulations **Lebyy Balakshin** and **Ellen Rosenberg** for their superb service.

Iain Taylor is the winner of the 2009 Slonecker Award for Outstanding Volunteer Contributions to UBC Vancouver.

Congratulations to **Yana Eglit** on her honourable mention for her talk at the MURC forum titled "Mutants on Drugs - Membranes, Cytoskeletal Drugs and Cell Cycle Regulators in Stomatal Development".

Congratulations to **Soroush Liaghat**, a second year volunteer research student in Biology, on his honourable mention at MURC for the Sustainability SEEDs poster under the supervision of Santokh Singh.

Julia Nowak received two travel awards at the 2009 Botanical Society of America meeting: The Vernon I. Cheadle Student Travel Award and the Triarch (Conant) Botanical Images award for outstanding student work in the area of creating botanical digital images.

Undergraduate Prize winners in 2009 were:

Hilary Smyth - Thomas M.C. Taylor Prize in Botany

Brett Latulippe - Clayton Person Memorial Prize in Biology

Benjamin Anderson - E. Bruce Tregunna Prize in Plant Physiology

Steven Joya - Adam F. Szczawinski Prize in Botany

Lylie McLeod - Vladimir J. Krajina Prize in Plant Ecology

Graduate Award winners for 2008/09 were:

Heather Esson (Leander Lab) - Edith Ashton Memorial Scholarship

Graeme Bell (Adams Lab) - Frances Chave Memorial Scholarship

Scott Liang (Kunst Lab) - Frances Chave Memorial Scholarship

Christopher Buschhaus (Jetter Lab) - Craig Adams Sandercock Memorial Scholarship

Bill Harrower (Turkington Lab) - Vladimir J. Krajina Scholarship in Plant Ecology

SPOTLIGHT ON BOTANY RESEARCH

2009 saw several research workshops start or be repeated. **Mary Berbee** and **Sean Graham** presented an advanced Phylogenetic Workshop to support the department-wide increasing interest and need for theoretical and practical in phylogenetic analysis.

Mary Berbee and **Oluna Czeska** organized the "Little Brown Mushroom Workshop" held November 13-15 and intended for those with an interest in mycology. This workshop will help participants learn about and identify cryptic species of (non-edible) little brown mushrooms found locally, using microscopic techniques. Your editor hoped that the workshop would start the long-awaited inventory study of fungi in the Botanical Garden, but the weather and other obstructions inhibited the cause and so the Garden must wait until next time.

Members of the Botany Department, Biodiversity Research Centre, and the Botanical Garden, Sean Graham, Jeannette Whitton, Wayne Maddison and Quentin Cronk, are deeply involved in *Canadensys*, a nationwide project funded by Canadian Foundation for

Innovation and led by **Dr. Anne Bruneau** (Université de Montréal, Dept. of Biological Sciences, IRBV: Institut de recherché en biologie végétale). The goal is to develop and provide a Canadian portal to university biological collections information. **Dr. Randal Mindell** (Ph.D. Alberta) post-doctoral fellow and former Ph.D. student with Ruth Stockey, made an outstanding, if brief, contribution to the Botanical Garden. He was the first fully committed researcher in the Garden for a very long time. The department of Earth and Ocean Sciences will benefit from his contribution to their teaching program during the Winter term of 2010.

A team of researchers at UBC and Stanford University have shown that marine algae produce lignin. In a study published in *Current Biology*, lead author **Patrick Martone** (Assistant Professor at UBC) and colleagues describe powerful chemical and microscopic anatomy techniques to identify and localize lignin within cell walls of a red alga, *Calliarthron cheilosporioides*, that thrives along the wave-swept California coast. Because red and green algae likely diverged more than a billion years ago, the discovery of lignin in red algae suggests that the basic machinery for producing lignin may have existed long before algae moved to land.

Working on Walls (WoW) is a new training project funded by the NSERC CREATE Program to provide support for graduate students in a network of labs investigating cell wall biosynthesis. The goal is to provide a high level of both scientific and professional post-graduate mentoring for students and post-doctoral fellows interested in plant cell wall biology. Funding is available for WoW trainees to carry out part of their research. WoW is now actively recruiting new graduate students and postdoctoral fellows for 2010 and onwards. Your humble editor is truly thrilled that our community continues to see the importance of cell walls. I suspect that Carl Douglas, Lacey Samuels and Geoff Wasteneys are at least partly responsible for this initiative.

The Botany Graduate Symposium in March was the highlight of the Winter Term. Dr. George Haughn's keynote

presentation, titled "Serendipity and the Scientific Career" was an excellent finale to a great day of talks and posters.

TEACHING

Botany faculty and graduate students continue to make outstanding contribution to teaching both in the department and throughout the University.

Iain Taylor (Faculty 1968-2003) continues to present workshops to assist researchers in all disciplines to prepare for the poorly charted road to publishing their work. Over 700 graduates, post-docs and even some faculty have taken part in these workshops since 1993.

COMINGS AND GOINGS

Ellen Rosenberg retired on December 31st 2009. She came to UBC as an Instructor in 1983 and was among the first group of Biology Lecturers who were moved to the rank of Instructor then Senior Instructor. All who worked with her and were taught by her knew the enormous commitment that she had for students. She cared that Biology be fun and that our teaching should be the best we could make it. Her crowning achievement was the creation of laboratories in the 2nd year Cell Biology course (Biology 200). On occasions she carried the laboratory torch for upper level cytogenetics and cytology. Outside the campus she had a major commitment to public education working as a cruise ship naturalist and bringing the biology laboratory experience to the Downtown East Side.

Ellen was one of the early graduates of the UBC Certificate in Higher Education and gave much of her time to young faculty members through her work as a facilitator and trainer in the Teaching Assistance Group's Instructional Skills Workshop. Botany will miss her, but her legacy will continue.

Lebby Balakshin left the department to become the Administration Manager of the Biodiversity Research Centre. She worked as Head Secretary and acted as Administration Manager when Elaine Simons was on maternity leave. We wish her well. She has only moved 200 metres away so we hope that we will not lose all contact.

Elaine Simons is back at the Admin. Manager's desk. No doubt life will

continue to unfold as it should. There is still need for budgetary miracles, so we know they will happen as they have done thanks to the amazingly smooth operations that Elaine and Lebby seem always able to maintain.

Welcome to **Aven Bendickson** who was appointed Botany Head Secretary.

Welcome to **Kathryn Zeiler, Liane Chen, Jennifer Klenz** and **Greg Bole**, who were recently appointed faculty members/Instructors joint Botany and Zoology.

RECENT GRADUATES

May 2009

Ph.D.

Heather Esson (Leander Lab)
Miki Fujita (Wasteneys Lab)
Minako Kanada (Samuels Lab)
John Laurie (Bakkeren Lab,

AAFC-PARC, Summerland)
Eryang Li (Douglas Lab)
Hardeep Rai (Graham Lab)

M.Sc.

Heather Ramsay (Riesenberg/Ritland Labs)
Anne Bjorkman (Vellend)
Jia Cheng (Ellis/Chen Labs)
Carolyn Marshall (Turkington Lab)
Yuanyuan (Echo) Yu (Haughn Lab)

B.Sc. Plant Biology

Yee-Chi (Christina) Chen
Ashley Fontaine
Steven Joya
Dawid Nogas

November 2009

Ph.D.

Gillian Gile (Keeling Lab)
Sarah McKim (Haughn Lab)
Robin Young (Samuels/Haughn Labs)
Songhua Zhu (Green/Chen Labs)

M.Sc.

Solveig Adair (Graham Lab)
Scott Black (Bradfield Lab)
Angela Knopp (Turkington Lab)
Lifang Zhao (Kunst Lab)

B.Sc. Plant Biology

Carolina Chanis Morales
Connor Fitzpatrick
Alison Graham

ALUMNI NEWS

Dorothy Fletcher (née Elvidge) died in Victoria on May 25th 2009. She graduated in the 1940s .

Rolf Mathewes (PhD Rouse) is Professor of Biological Sciences and Associate Dean of Science at Simon Fraser University. He gave a talk at the Botanical Garden, entitled "Forensic Botany – Past, Present and Future".

Nishanta Rajakaruna (PhD Bohm) is an Assistant Professor of Plant Biology at San José State University.

Jeff Saarela (PhD Graham) and a group of Canadian botanists undertook a month-long canoe expedition in a remote corner of Canada's North to gather more than 1,000 plant samples, in part to track the impacts of climate change.

Stacey Thompson (PhD Whitton) is an Assistant Professor in the Department of Biological Sciences at California State University, Los Angeles. Stacey wrote "I've been busy setting up my new Plant Evolutionary Genomics lab (we're extending the Canadian Forest Service work to the California *Populus* species). As we are a Minority Serving Institution in East Los Angeles, I can satisfy my pedagogical interest in the role that the affective domain can play in improving minority participation within the sciences. It was inspired Botany faculty, including Shona Ellis, Lacey Samuels and Tony Griffiths, that helped to foster my development and my values concerning a balanced interplay between Teaching and Scholarship.

Nancy Turner, OBC (PhD R.L. Taylor), now a Distinguished Professor at UVic was appointed to the Order of Canada in July 2009.

50 YEARS AGO - GLEANINGS FROM UBC ARCHIVES

Ph.D. (1959) Walter Bruce Glenn Denyer. Thesis: The biology of *Flammula alnicola* (Fr.) Kummer.

M.Sc. (1959) Gertrude Draper Pentland. Thesis: An investigation of the mycorrhiza of Douglas-fir seedlings.

BSc (1st class honours in Botany).
Donald Emanuel La Berge.

Donald La Berge received an *NRC Graduate Award*.

Robert C. Brooke received an NRC Graduate Award. He spent most of his career at SFU.

Laszlo Orloci received an *NRC Graduate Award*. He retired some years ago from the University of Western Ontario.

Tom Widdowson received an *NRC Graduate Award*. Tom is very active in work on west coast algae.

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: botalumn@interchange.ubc.ca In particular, we need addresses and e-mail contacts so that we can remake connections that have been lost over the years.

Second reminder:

Please take a few moments to record your memories of time in the Department and at UBC. Send them to me by e-mail

botalumn@interchange.ubc.ca

or snail mail to:

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