The Perfect Balance

Professor Laura Frost, a Visiting Scholar to the School, believes that one of the greatest challenges for a scientist is finding a successful balance between family and career.

Laura Frost has faced many difficult decisions in her life. In graduate school at the University of Alberta, Canada, she was completing her PhD in biochemistry under the supervision of Bill Paranchych. On top of writing a thesis, she was also raising three young children.

“Being in grad school and looking after three kids meant that I was exhausted all the time and feeling like I could never get anything done,” remembers Laura. “I had reached the point where I was going to quit my PhD.”

But her father, Raymond Urgel Lemieux – an organic chemist who made a number of key discoveries in the field of chemistry, most notably the synthesis of sucrose and the blood group antigens – had other plans. “My Dad said ‘If you quit, I’ll spank you’,” she laughs. “He didn’t usually show much emotion, so having him say that really took me back and I thought I’d better keep going!”

Her commitment to continue juggling work and family eventually paid dividends. She was awarded a doctorate in 1978 along with a Nature paper resulting from her PhD research. “Looking back it was very difficult to balance work and family commitments,” she says. “But by making the decision to succeed and putting in the effort to complete experiments in the evenings, I was able to be very productive.”

After graduating, Laura took up a job as a research associate in Bill Paranchych’s lab and used opportunities to visit other research groups to broaden her experience. “I worked hard as a research associate to build up my CV,” she recalls. “It was the best thing I could have done during those years and it put me in a good position to be offered a Professorship.”

By 1990, Laura was a Professor in the Microbiology department at the University of Alberta. She was running a laboratory that researched the mechanism of bacterial conjugation – a process whereby bacteria exchange genetic material from cell to cell. Laura thrived in her role.

In 2002, Laura’s career took a turn when she became Acting Chair of Biological Sciences at the University of Alberta. In 2003 she became Chair, holding the reins of the largest biology department in Canada with over 70 academic staff. “I very much enjoyed being in administration,” she says. “I had motivated students and an excellent technician who kept my lab and research going while I was focused on running the department.”

It was during her years as Chair of Biological Sciences, where Laura began to notice the low retention rate of female students and even lower representation of women in senior academic roles. “I saw a lot of talented female students who were not staying in science,” she says. “Science is a very competitive, hard business to get into. There are very few academic positions open and only a vague career path after the PhD level. There simply are not enough jobs for PhD trained research scientists.”

While a lack of positions in research is a problem common to both men and women, Laura finds the real problem for women is in meshing family with a career in science. “Let’s face it – women are the ones who have babies,” she says. “If you take a year or two off to be with your children it is very difficult to get back into research. The fields move so fast, you have to be consistently publishing papers and going to conferences. This is not the type of business where you can come back after a few years. And those are the women I am concerned about.”

In recent years, Laura has turned her attention to addressing the issue facing women in science. She held the position of Aigner-Rollett Professor in Women’s and Gender Studies at the University of Graz, Austria, during the spring of 2009. “I had the advantage of teaching this course on the topic of women in science from the point of view of a woman in science, rather than a sociologist that studies the subject,” she says.

Laura is currently visiting the University of Sydney as a Visiting Scholar working with Dr Neville Firth at the School of Biological Sciences. Together with Dr Firth, Dr Slade Jenson and Dr Stephen Kwong, Laura will be sequencing plasmids of Staphylococcus aureus to understand how the bacteria have used these plasmids to develop antibiotic resistance over the last 65 years. During her stay, she has also presented a seminar at the Faculty of Science’s Women in Science Project.

Whilst the challenges that face women who choose a career in science are complex, Laura says that awareness on the topic is important to bring about changes in university policies to support and encourage women to achieve in science. “Having scholarships that assist in paying for childcare during conferences, fellowships for women in their first year back from maternity leave or support for spouses to gain employment in the same university, are all important practical steps to enable women to achieve satisfying and productive careers in science whilst being able to have a family.”
It was gratifying to see in the Times Higher Education World University Rankings that the University of Sydney had improved its ranking from 27 to 15 for Life Sciences and Biomedicine and from 44 to 34 for Natural Sciences. Congratulations to Steve Simpson who was awarded NSW Scientist of the Year and David Llewellyn, one of our 2009 honours students, who has been awarded a prestigious Rhodes Scholarship to do postgraduate study at Oxford.

The Teaching Committee organised a day for us by the harbour at Sydney Institute of Marine Sciences (SIMS) at Chowder Bay to share ideas of best practice in teaching and plan for the future teaching programs. One of the highlights of the day was the realisation that many of our senior units of study now incorporate independent research projects. Various ideas for managing such projects were shared including a thought provoking presentation by Frank Seebacher about the award winning program he has developed in Ecophysiology. This was also a great opportunity to visit the facilities of SIMS and consider how the School could develop further teaching and research programs there.

Finally, we have farewelled David Day as Dean of Science and Professor in the School but look forward to welcoming him back from Flinders as often as possible in his new capacity as a visiting professor. I record my thanks to David for his strong support of the School over past years.

All the best for the festive season,

Robyn

Professor Robyn Overall
Head, School Biological Sciences
Our research focuses on the foraging decisions that animals make in response to their environment. In particular, I am fascinated by the question of how herbivores make a living from eating plants that are full of toxins while avoiding becoming a meal themselves.

Much of our research, then, investigates the interaction between plant and landscape characteristics that make an environment more or less risky to feed in. Given these constraints – where do animals feed and what do they feed on?

By manipulating feeding stations in the bush, and filming how free-ranging animals behave at these feeders, we now know that brushtail possums, swamp wallabies and even bushbabies (in Africa) quantify and compare the cost of plant toxins to the cost of predation risk. In essence, we get these animals to tell us exactly how much toxin equates to a certain amount of fear.

Setting up experiments to test these ideas can be tricky – we use captive animals in some cases to define the experimental treatments more clearly, then run pilot studies in the field to find a suitable food the animals will eat, and feeders that are water-proof and avoid as many non-target species as possible. For example, how do you make a feeder attractive and accessible to wallabies but not to possums – and vice versa? We have gone through several feeder designs, but our latest uses large tubs, plastic tubing cut into small pieces as the inedible matrix, and food in the form of rabbit pellets for wallabies, or rabbit pellets with a little extra sugar for possums (why are possums so picky?? I thought they ate anything!).

Ecology for Conservation

The brushtail rock-wallaby population is endangered in the Warrumbungles in western NSW and we have taken a simple but effective approach to understand their foraging patterns. By studying the spatial distribution of their scats, our work has helped understand what is constraining foraging individuals and hence, presumably, the population. We have shown that the rock wallabies remain close to safety, but they use even small piles of rocks as stepping stones for foraging further afield from their central rocky refuge.

Interestingly, the rock wallabies are strongly affected by competition with other macropods – they clearly prefer feeding in areas with lots of food when the competitors are absent, but are shunted onto areas with little edible vegetation when they have competition. This tells us that reducing predation risk is unlikely to be sufficient as a conservation strategy – we need to consider competitors as well.

By quantifying the responses of a range of mammalian herbivores in Australia and in other ecosystems, we are able to generalise about the constraints that act on foraging animals. We can start to understand how these constraints affect the success of animals at the population level.
Who’s New?

Professor Maria Byrne commenced a 25% role with the School in September 2009. Professor Byrne, who is based in the Anatomy unit in the School of Medical Sciences and is director of One Tree Island Research Station in the Great Barrier Reef, will be located in the Edgeworth David Building when at work for the School.

Ido Isler commenced duties as a Research Assistant in the McArthur Laboratory in April 2009. Before taking up the role in the School with Dr Clare McArthur, Ido completed his Masters on Arabian Oryx ecology, as well as worked as a ranger, in the Eilat mountain region in Israel. Ido will be assisting Clare with her research on the ‘giving up density’ of possums and will be conducting field work mostly in Kuringai and Garigal national parks. Ido is also the School’s sustainable team representative.

Dr Timothy Schaerf commenced as a Postdoctoral Fellow in the Beekman Laboratory in April 2009. Tim is a graduate of the University of Sydney, starting with a double undergraduate degree in civil engineering and science. He went on to complete an honours degree and then a PhD in applied mathematics. His PhD interest was in studying vortices - coherent masses of whirling fluid like cyclones and oceanic eddies – with the highlight being Jupiter’s Great Red Spot, the massive eye-like feature present in the southern hemisphere of Jupiter’s atmosphere. The Red Spot is believed to have persisted for well over 300 years with the first reported observations of the feature made by Robert Hooke and Giovanni Cassini. It’s unusual for such a structure to last so long without breaking down.

Tim is now working on understanding the nest site selection process made by the asian dwarf honeybee *Apis florea* with A Prof Madeleine Beekman, Dr Mary Myerscough from the maths department and PhD student James Makinson.

Dr Vanina Vergoz will join the Oldroyd Laboratory as a Postdoctoral Fellow in early 2010 to work with Prof Ben Oldroyd on a project investigating the implication of dopamine receptors in worker honeybee sterility. Vanina will use diverse approaches such as behaviour bioassay and genetics.

Vanina completed her PhD in Alison Mercer’s group at the University of Otago, New Zealand, where she investigated the striking action of the pheromone released by the queen honeybees on worker bees. She was also interested in the dopamine implication in the action of the queen pheromone not only at the behavioural level but also at the learning and memory level.

In 2009, Vanina was awarded a Human Frontier Science Program short term fellowship as well as a Journal of Experimental Biology travel award.

Dr Martha Patricia Ramirez Pinilla from the Universidad Industrial de Santander, Bucaramanga, Colombia is a Visiting Scholar with Prof Mike Thompson from September 2009 to August 2010.

Professors Rudy and Elizabeth Raff and Ms Mary Andrews of the Department of Biology, Indiana University, USA, will return as Visiting Scholars from November to December 2009.

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Professor Robin Andrews of the Biological Sciences Department, Virginia Tech, USA, has been appointed as a Visiting Professor in the School under the Faculty of Science’s Visiting Fellowship for Women scheme from August 2009 to April 2010 to work with Prof Mike Thompson.

Hatches

Alison and Ashley Ward were delighted to welcome their first baby, Sam, on July 17.

Asad Prodhan and his wife Naznin Sultana Eva welcomed a little girl, Sameeha Zaman, to their family on 21 August.

Ben Phillips has a new addition to his family. Baby Archer was born on the auspicious date 09/09/09 at 5am in Darwin. Ben and Taegan are very happy.

Will Figueira and his wife Sarah had a baby boy on 10 November. Max weighed 3.2 kg and measured 50 cm at birth.

Visiting Scholars

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Achievements

Dr Nathan Lo was awarded a Queen Elizabeth II fellowship by the Australian Research Council with funding to commence in 2010. Nate received the award along with five years funding for a Discovery Project with the title ‘The evolution of caste determination systems in termites’.

Professor Rick Shine has been awarded the 2009 Australian Natural History Medallion by the Field Naturalists of Victoria for his contribution to the understanding of Australia’s natural history.

Dr Greg Sword was awarded the Perry Adkisson Distinguished Seminar Speaker Award from Texas A&M University. As part of the award, Greg delivered two lectures at Texas A&M campus and visited graduate students and faculty of the Department of Entomology. The award is named for Dr. Perry Adkisson - a highly distinguished entomologist credited as a developer of what is now known as modern Integrated Pest Management - and recognises outstanding researchers in the field of entomology.

Student Awards

PhD student Adrian Davis and Dr Charlotte Taylor have been awarded $100,000 from the WV Scott Charitable Trust for research into the ecology of Sydney’s urban parrots looking at changes in abundance, resource utilisation and competition.

Endymion Cooper, PhD student in the Henwood Laboratory, recently received two awards: from the Linnean Society of NSW Joyce Vickery Scientific Research Fund of $1400 towards DNA sequencing and a PhD Student Research Supplement from the Australian Biological Resources Study of $5000 towards field research in Western Australia and Tasmania.

David Pike has been selected to present at a symposium entitled: Climate: Science + Humanities, to be held at Harvard University in early 2010. The conference brings together postgraduate students from China, America, and Australia to facilitate the exchange of information on how climate change may affect the humanities. David is one of 16 students from Australia, and 2 from the University of Sydney, participating in the conference.

Elsa Glanville was awarded the 2009 Postgraduate Excellence Prize. The prize was presented by Professor Robyn Overall at the November 4 Head of School’s morning tea. Runners-up Anke Frank, David Pike and Nadine Chapman were also presented with finalist certificates. Elsa’s win was based on her presentation - ‘Are reductions in body temperature advantageous for a small, non-torpid endotherm (Rattus fuscipes)?’ – delivered to judges on September 23.

Biology Honours Student wins 2009 NSW Rhodes Scholarship

The winner of the 2010 NSW Rhodes Scholarship is David Llewellyn, a School of Biological Sciences’ Honours student with a determination to develop a vaccine for malaria.

“It’s an absolute honour to be selected and I am very excited to be going to Oxford but the magnitude of winning hasn’t really set in,” David said.

David completed his Honours research under the supervision of Professors Rick Shine and Mike Thompson. His thesis, submitted in October, related to the slow spread of cane toads across Northern Australia and focused on toads’ immune responses and the development of disease-related control strategies.

David says a logical extension of this research is the application of disease control strategies to a humanitarian field.

At Oxford he will study a Doctorate in Philosophy in a laboratory run by Professor Adrian Hill at the Wellcome Trust Centre for Human Genetics. Professor Hill is a world leader in the field of immunology and vaccine development, in particular malaria vaccine development.

David was educated at Great Lakes College Forster/Tuncurry where he was dux of his year, won the Eureka Schools Prize for Biological Sciences and received a UAI of 99.3.

His love and aptitude for biology was inherited from his mother, a comparative physiologist, and father, a wildlife manager.

“I spent my childhood being taken to whale strandings with my parents,” remembers David. “When I was six years old I lived on Heron Island for one month while mum conducted field work on sharks.”

He was also inspired to be part of local environmental solutions by a recent trip to Brazil in which he worked with the National Institute for Amazonian Research, and with local farmers to raise awareness of conservation issues.

David is a resident of the University’s St Paul’s College and has been an active member of the College, having taken leading roles in a number of the College plays, as a regular member of the soccer squad and as the co-author of a report on the ecological sustainability of the College.

David’s win follows the 2009 awarding of the scholarship to Natasha Simonsen, a University of Sydney economics/law graduate.

David holding an olive python while in the Northern Territory for Honours field work. Photo credit: David Llewellyn
Professor Steve Simpson has been named as the NSW Scientist of the Year 2009 for his cutting edge research on nutrition and its implications for ecology, evolution, agriculture and human health. The award, given by the NSW Office for Science and Medical Research, recognises the significant impact of Steve’s research on a variety of fields from locust swarms to obesity, to more effective and environmentally sustainable dietary supplements for aquaculture.

This title follows numerous other awards given to Steve this year. In April, Steve was the Inaugural Princeton Frontiers of Biology Lecturer. For his award, he presented a seminar at Princeton University - ‘Lessons from Locusts: From Social Behavior to Human Obesity’ - and will be part of a Frontiers of Biology book published by Princeton University Press in 2010.

In June, Steve was awarded an Australian Laureate Fellowship from the Australian Research Council, being one of only 15 Australian scientists to be awarded the prestigious fellowship which provides $3 million funding over 5 years.

Most recently, Steve was named in the top 100 most influential people in Sydney by the Sydney Morning Herald’s the(sydney) magazine. Dubbed ‘The Sleuth’ in the list, he was selected for his research on locust swarming, which led him to form the protein leverage hypothesis that also applies to more complex animals, including humans.

“I have absolutely loved being back in Australia,” Steve enthuses. “The spirit of collaboration in Australian science has meant that I have been able to extend my network of projects and collaborators within the School, across Schools in the Faculty of Science, between Faculties, across Australian universities, and also to maintain and extend my international collaborations.

“Australian collaborators who have been a crucial part of the development of this research program are Greg Sword, and multiple postdocs including Fiona Clissold (locust nutrition), Jerome Buhl (modelling collective movement), Alison Gosby (human nutrition), Samantha Solon (mouse ageing), Fleur Ponton (nutrition and immunity), Marie-Pierre Chapuis (locust genetics), Karine Berthier and Mike Watts (spatial ecology of locust swarming) and Audrey Dussutour (collective nutrition in ants).”

Launch of A Natural Calling

In celebration of the Darwin Anniversaries, the fascinating new book by Professor Tony Larkum, A Natural Calling: Life, Letters and Diaries of Charles Darwin and William Darwin Fox, was formally launched at an event held on 9 October.

A Natural Calling provides new factual material on the life of Charles Darwin, following research undertaken over a 25 year period by Professor Larkum into Darwin’s relationship with his cousin William Darwin Fox.

The launch was held in the historic Macleay Museum where drinks and canapés were served upon arrival to about 60 guests, including Professor Robyn Overall, Head of Biological Sciences as well as many of Tony’s friends, colleagues, and students past and present.

Formal proceedings were opened by Dr Jude Philp, curator of the Macleay Museum, who introduced Tony and the Museum venue. Professor Robyn Overall followed with a biography of Tony’s scientific career and achievements: beginning life in London, Tony received all his basic academic training in the UK. After graduating from Oxford University with a Doctor of Philosophy, he spent three years as a research fellow in a plant biophysics laboratory in Cambridge working on photosynthesis and chloroplasts. Tony has a long-held interest in the history and philosophy of biology. Central to this is an interest in evolution and the contributions of Charles Darwin and Alfred Russel Wallace.

Finally, Tony provided a fascinating account of how he obtained the invaluable letters, written by Charles Darwin and his cousin William Fox, which he painstakingly compiled to create the correspondences in A Natural Calling.

Guests were then treated to readings of selected letters from A Natural Calling, which were performed by Hilary Larkum and Dr Michael Charleston. Having the views of Darwin and his confidante brought to life through live readings, the book greatly enlarged our appreciation of the life and contribution of Charles Darwin at a profoundly personal level.

Top and middle image: Mrs Hilary Larkum, wife of Professor Tony Larkum, Dr Michael Charleston, Senior Lecturer in Bioinformatics and Professor Tony Larkum (in blue), author of the new book. Bottom image: Professor Tony Larkum signs a copy of A Natural Calling for guest Allecia Khartu.
Media Watch

Dr Mike Letnic was interviewed on ABC radio on 20 and 31 Aug to discuss a proposal to reintroduce dingoes into national parks, saying they have a role to play in arid Australian ecosystems and are useful in reducing the numbers of feral cats, foxes and goats and other introduced species.

Dr Nate Lo appeared on Channel 9 TV on 28 August with a giant burrowing cockroach, discussing their ecology and merits as a household pet. Nate was also interviewed for Daily Telegraph, Herald Sun and Adelaide Advertiser published on 28 Aug to promote the burrowing cockroach on display at Sydney Uni Live! He also appeared on radio 2UE, ABC Western Qld and ABC 774 with Red Symons on 30 Aug.

After being awarded $620,000 in funding from the Federal Government for research into tadpoles, Prof Rick Shine was featured on ABC 720 Perth, Daily Telegraph, Daily Advertiser, Australian Financial Review, Cairns Post on 1 September and ABC 702 on 2 September.

Biology supports cancer research

In May, The School of Biological Sciences held its annual cooking competition for the Biggest Morning Tea to raise money for The Cancer Council. This year, two very successful events were held on 27 May in the Macleay Museum and in the Carslaw Building, with over $850 raised and impressive cooking skills displayed.

In line with this year’s space theme, skilful biologists baked up a constellation of cosmic cakes including space rockets and everybody’s favourite astronaut – Mr Squiggle.

Julie Taylor from the Museums won ‘Most Creative’ for her gluten free space rocket. Julie Lim from the biology won ‘Yummiest cake’ with her chocolate Queen of Sheba cake. Runners up included Mr Squiggle and Deb Shearman’s avocado cheesecake.

Mathematical freak Peter Oxley from the beelab managed to work out how many lollies were in the lolly jar despite having different shaped lollies this year.

The events were organised by Jo Walker for the Macleay Museum and Sarah Newell and Katie Jakes for Carslaw. Organisers were grateful for the help of Jacquie Herbert, Malcolm Ricketts, Les Edwards, Deb Shearman, Jude Philip, the Museum staff, and Julie Lim.

Biggest Morning Tea, top row: Mr Squiggle’s rocket; middle row (left to right) Julie Taylor, Julie Lim, Peter Oxley; bottom row (left to right) supporters in Macleay Museum, ‘Two sows and a nun - a space oddity’ cake. Credit: M.Ricketts

The School also participated in Daffodil Day on 28 August to raise money for the Cancer Council. This year, Jacquie Herbert organised the fundraiser by selling fresh daffodils, daffodil pins, cards and teddies to members of the School, raising $600 for cancer research.

Second year marine biology students Melissa Tan and Belinda McCarthy appeared in the media following their Hobart to Sydney voyage onboard the Southern Surveyor led by Drs Will Figueira and Sebastian Holmes. Melissa was interviewed by ABC Newcastle on 14 and 23 October, and Belinda McCarthy was featured in the Western Weekender Penrith on 23 October.

Dr Clare McArthur was interviewed on November 11 by ABC FM about her research on the endangered brush-tail wallaby.

Prof Rick Shine appeared in the Kimberley Echo on 3 December commenting on the research of Ruchira Somaweera and Dr Ligia Pizzatto into the use of lung worms as a biological control for cane toads.

Dr Mathew Crowther spoke to ABC Radio National on 7 September and ABC Canberra on 8 September about the Giant Rat discovered by BBC reporters in Papua New Guinea.

Following being named NSW Scientist of the Year, Prof Steve Simpson was interviewed by ABC Darwin, ABC 702 Sydney, Daily Liberal, Daily Telegraph and Sydney Morning Herald on 11 September and ABC 702 on 14 September and the Inner West Courier on 27 October.

Prof Rick Shine was interviewed by 702 ABC on 25 September to talk about Australian snakes in summer.

Research by Dr Mark Browne and Prof Gee Chapman on the effect of seawalls in Sydney Harbour was featured in the Sydney Morning Herald on 17 October. The study involves placing concrete pots on artificial sea walls to mimic the rock pools lost due to development along the coastline. The pots increased the number of species by more than 3 times and are now helping local councils to improve the biodiversity within Sydney Harbour.
Outreach Activity – end of year report

The outreach calendar year began in January when 120 students attended the University of Sydney’s Science Experience to become forensic scientists for three days. The student investigators learned a range of forensic techniques – from DNA analysis with Biology to fibre identification with Chemistry – to compile evidence to solve a murder case.

The term one holidays in April brought the next crop of high school students to campus with the Faculty of Science’s flagship activity – the Gifted and Talented Discovery Program. On April 15, a bumper group of 70 exceptional students in years 9 and 10 descended on campus for a three-day science odyssey through the Schools of Chemistry, Physics and Biological Sciences.

Day three saw the youths in the Biology laboratory celebrating the anniversary of Charles Darwin through evolution-based activities. The first task of the day was a pop-quiz on the life of evolution’s father, whereby the winner was given a Children’s Stick Insect as prize. Then followed a fascinating experiment where the students demonstrated rapid evolution through a simple, yet highly competitive, foraging game. Further support for evolution came to the lucky students in the form of an entertaining lecture by Professor Rick Shine, who described his important research on the cane toad invasion.

Degree in a Day – a university-wide outreach activity aimed at year 11 students – also brought visitors in April. Students were able to book into a Biology activity where they could get up close to plant DNA and explore the inner anatomy of squash.

June was an important month for outreach as the University of Sydney’s Compass project was officially launched by the Deputy Prime Minister and Minister for Education and Social Inclusion Julia Gillard and University of Sydney Vice-Chancellor Dr Michael Spence. Compass aims to encourage primary and secondary school children from low socioeconomic backgrounds to participate in higher education through a series of outreach, mentoring and professional development programs.

July brought a frenzy of activity to the outreach calendar. 2009 was the year for the 35th Professor Harry Messel International Science School (ISS), which ran 12-25 July. The ISS is a biennial two-week scholarship program rewarding high performing Year 11 and 12 students from Australia and other countries. This year’s ISS, Genes to Galaxies, was in line with the International Year of Astronomy and Darwin anniversaries. Students were treated to a range of science activities in the various schools, as well as lectures by illustrious scientists such as Chief Justice Robert French, Chief Justice of the High Court of Australia and Professor Jill Tarter, director at SETI (Search for Extraterrestrial Intelligence).

The second Gifted and Talented Discovery Program ran over 15 – 17 July with a new group of bright minds attending biology, chemistry and physics workshops. The School of Biological Sciences crowned the three-day programme with a workshop that delved into human physiology. Using their colleagues as patients, the medical ‘interns’ tested sensory perception, respiratory function and even learned to measure blood pressure using a sphygmomanometer. Physiologist-in-residence, Professor Mike Thompson, gave an immensely entertaining guest lecture on the blood pressure woes that might have afflicted dinosaurs. Greg was pleased to find many audience members showing promise as field assistants, and hopefully future biologists.

Following close on the heels of Gifted and Talented was Science In The City – the Faculty of Science’s outreach program, which partners with the Australian Museum.

Science in the City, located at the Australian Museum on College Street, is an annual event designed to give students a hands-on experience in science and to display the huge variety of career opportunities in science engineering, technology and innovation.

This year festivities ran from August 4 – 13 and attracted some 5,000 students from 200 schools. Biology workshops had students typing blood and conducting RFLP analysis to determine whether billionaire teen actor Daniel Radcliffe had fathered a ‘love child’. Primary students came face-to-face with the mini monsters living under their feet as they caught and examined invertebrates in samples of leaf litter.

The final activity to top off the two-month science communication whirlwind was Sydney Uni Live! – the University’s biggest student recruitment day of the year. On Saturday August 29, an estimated 18,000 visitors enjoyed campus tours, mini lectures, visits to museums and one-on-one discussions with academic advisers to discover more about study opportunities and Sydney Uni life.

The Faculty of Science was ready on the day to flaunt its best colours. The Eastern Avenue foyer was packed with stalls from many of the Schools, all providing hands-on activities for the public. Biology’s stand had something to suit all scientific palates. Botany was covered by an impressive microscope, manned by Overall Lab members Dr Deb Barton and Will Armour, that illuminated the hot-pink glands which make Venus Fly Traps deadly. Zoology was well represented by a range of insects, kindly provided by Dr Tanya Latty and the Sword Lab, and the obligatory python. Locusts were put to work in student recruitment at the Biology seminar given by Dr Greg Sword, where they were let loose into the audience to demonstrate a ‘simulated swarm’. Greg was pleased to find many audience members showing promise as field assistants, and hopefully future biologists.

The science outreach calendar concluded with two gargantuan days of science fun at Giant Science – a program tailored to primary students. Each day commenced with a science show filled with heart-stopping demonstrations such as exploding hydrogen balloons. Many activities from a range of schools, such as mutant worms in the School of Molecular and Microbial Biosciences, followed to inspire the next generation of scientists.
“Spring Time is Swarm Time”
Biology Alumni Cocktail Reception 2009

By Professor Mike Thompson, Chair Biology Alumni Committee

More than 200 people attended the 2009 cocktail reception in the Macleay Building Foyer and Botany Lawn on the evening of Friday 23 October.

Groups of alumni representing many decades of graduates gathered to share very happy memories of their time in the School and to catch up on their subsequent activities.

The lawn was adorned with 100s of lights and candles, and the Science Review Band provided background entertainment.

A piece of nostalgia was present in the form of the much loved Chinese Elm tree that, after a long life spent shading countless SoBS revellers on the Botany Lawn, sadly succumbed to an infection in 2008 and was cut down.

A salvaged cross-section of the trunk was mounted on the wall in the Macleay foyer especially for the alumni event, which has given the tree a second life to be enjoyed by future SoBS students.

Herpetologist Melanie Elphick might have missed her calling as a Botanist, as she won the competition to correctly count the growth rings of the elm tree and was presented a pen made out of its wood for her prize.

This year’s party extended the successful inaugural biology alumni party - Memories, Music and Microscopy - held last year, and we hope that it sets the scene for what will become an annual event, so pencil it into your diaries.

The School of Biological Sciences is extremely happy to have renewed friendships with our alumni and we are keen for that friendship to continue.

A big thank you to the Alumni Committee, and especially Jacqui Herbert, Warrick Angus and Carla Avolio who coordinated the whole event, our current postgraduate students who served the food and drinks and provided labour when needed, the School of Biological Sciences who funded the event and most of all, to all the alumni who attended. We hope to see you all next year.

To download images from the 2009 Biology Alumni party, visit the Bio Alumni Webpage

www.bio.usyd.edu.au/alumni

Top row (left to right): guests on Botany Lawn; Mike Thompson presenting Melanie Elphick with her pen prize; ex honours students Katynna Gill (right) and Holly Fellowes (left) reuniting with Adrian Fellowes (centre)

Middle row (left to right): the science revue band; Jo Walker reunites with friends, the new elm tree decorated with fairy lights

Bottom row (left to right): Margaret Gilchrist with Cheryl Handford; the past and present Overall lab; helpers Will Armour and Anke Frank

Credit: M.Ricketts.