

The New Zealand Society for Parasitology

NEWSLETTER NOVEMBER 2011

FROM THE PRESIDENT

Firstly thank you to everyone who attended the 39th Annual conference of the N.Z.S.P. held in Palmerston North last week – I'm sure everyone will agree that it was a great meeting.

My column this month follows on from the conference and is a shortened version of the Presidents Report as given at the AGM (specially for Justin Hurst)

"Once again I would like to thank the members of the organising and executive committees for making this conference happen, and would like to reiterate our gratitude to the sponsors, without whom this event would not happen.

The aims of the executive committee this year have been threefold, namely to:

- 1) Increase the society's profile
- 2) Increase membership and
- 3) To stage a successful conference

I think everyone would agree that we have made significant steps in achieving these goals and the society is in good heart.



On the running of the society there have been two changes from last year. The first is relatively minor and concerns a small change to the constitution to allow the society to maintain non profit status. (This was passed unanimously at the AGM).

Of greater importance and in need of recognition is Tania Waghorn's "retirement" from the position of secretary of the society.

Tania has filled this role for the past six years and has provided invaluable support and direction to various presidents and committee members. On behalf of the society I'd like to offer a sincere vote of thanks to Tania.

N.Z.S.P. members were to the fore at the recent WAAVP Congress in Argentina, with several members giving presentations. Also of note was the election of Barry Hosking to the executive and re-election of Bill Pomroy as secretary of WAAVP – congratulations to both.

Finally I would like to extend my gratitude to the other members of the executive and Dallas Bishop who have supported both myself and more importantly the society over the past year"

Colin

Executive		
President:	Colin McKay	<u>colin.mckay@novartis.com</u>
Vice President:	lan Scott	I.Scott@massey.ac.nz
Treasurer:	Dean Reynecke	dean.reynecke@agresearch.co.nz
Secretary:	Caroline Costall	caroline.costall@agresearch.co.nz

NZSP CONFERENCE 2011

ICLT, Massey University Palmerston North 27 & 28 October

Well done **Heather** and **Tony**! This was a very successful conference with papers covering a wide range of topics. Presentations were well received and generated good discussion.

The invited speakers, **Dr Garry Levot**, **Professor Susan Worner** and **Professor Robert Poulin** all provided updates and overviews from their areas of expertise that widen the interest of the conference.

Wharerata made a very pleasant venue for lunches and for the conference dinner. The after dinner speech, by last year's nominated honorary member **Dr David Heath**, was entertaining (see below).

FROM THE AGM

Election of Officers

PresidentColin McKayVice-PresidentIan ScottSecretaryCaroline CostallTreasurerDean Reynecke

Proposer: Tania Waghorn | Seconded: Dallas Bishop Bill Pomroy | Richard Shaw Tania Waghorn | Richard Shaw Bill Pomroy | Paul Mason

Conference Venue 2012

Paul Mason and Robin McAnulty offered a South Island venue – yet to be determined. Initial suggestions were Blenheim or the West Coast. They would be open to other suggestions and offers of help.

Notices of Motion

These were circulated prior to the conference and as mentioned in Colin's report related to the nonprofit status of the society as required by the IRD. Tony Charleston was able to provide some background on why these changes have been suggested from his association with other not for profit organisations.

The amendments to the constitution were passed. An amended version of the constitution will appear on the website once these changes have been approved by the IRD.

Nomination for Honorary Membership

A nomination was read by Ian Scott proposing foundation member **Dr Tony Charleston** for the honour of this position. The citation is included in this newsletter.

The minutes of the meeting will be posted on the website as well as being circulated to members.

Publication of Abstracts

Suggestions as to where to publish the Conference Abstracts had been raised in the August 2011 newsletter. With no responses received it was raised at the AGM. Alternatives to the NZ Journal of Zoology had been investigated but page charges were considered too high. Members were asked if they would be happy to have them published electronically on the website. Those in attendance were happy with this proposal. Ian Scott will look into the availability of space for this on the website.

New Members

Welcome to the following new members:

AgResearch
Massey University
AgResearch
MSD Animal Health

Martin Walshe Isabel Blasco-Costa Melanie Lloyd Robert Poulin Hunterville Vet Club Otago University Otago University Otago University Anson Von Arsdale Koehler

Bronwen Presswell	
Hasseeb Randawa	

Otago University Otago University Otago University

This month we have a brief bio for **Caleb King.**

Caleb King is a New Zealand veterinarian with a rural background and strong interest in medicine, epidemiology, and disease management. Caleb left school at 15 and enrolled in a certificate in agriculture at a local polytechnic in Whangarei. At the end of the agriculture course he began a career dairy farming in the Rodney district. Encouragement from a local farmer and veterinarian led him back to study, and he completed 6th and 7th form school studies whilst working as a dairy farm cadet in Wellsford. Caleb attended Massey University to become a veterinarian and he graduated from Massey University in 1993. Caleb worked in mixed practice for six years before returning to do a masters degree in epidemiology whilst working for Manawatu vets in Feilding. He worked as a study director conducting registration trials for new animal remedies at Massey and then joined the MAF exotic disease team, just in time to participate in the major Foot and Mouth disease epidemic in the United Kingdom in 2001. Caleb spent nine years with the National Centre for Disease Investigation (NCBID) at Wallaceville,

Anja Studer Caleb King Cathryn Christie Otago University Agvet Solutions Vet Focus

dealing with a range of interesting incursions including several parasites of dogs, avians, ruminants, and people. Caleb completed his masters degree



with honours in 2003, and became a member of the epidemiology chapter of the Australian College of Veterinary Scientists in 2008. Caleb left the NCBID in 2010, to manage a ruminant practice in the South Wairarapa. The predominance of sheep and beef farms in this practice has given him the strong incentive to learning and understanding more of the parasites of ruminants. Caleb is married to Stephanie and has two children. In addition to managing a busy work and home life, Caleb enjoys playing music, hockey, and tennis.

AFTER DINNER SPEECH – DAVID HEATH

Apparently Colin had asked David to talk about anecdotes of experiences during my career. David states "these of course would fill a book!" Instead we were entertained with *"Some anecdotes about experiences during international promotion of the hydatid vaccine"*.

China Adventure Because of the collapse of the

Argentinian economy, we decided to direct our technology



transfer to China. The first visit in 1996 hyped up the Ministry of Health, who were very keen to use the vaccine. However, when we finally got to the western border of China, where hydatid was particularly common in humans, the Ministry of Agriculture claimed the vaccine. They claimed that they did the animal work, and they did not talk to the Ministry of Health. So, we started again. Lots of visits to Beijing and Western China, and a Min of Ag delegation visiting New Zealand, and we finally had an agreement to go ahead and test the vaccine in China. I supplied vaccine to China, and then went back 9 months later to help with the necropsies. When I arrived there were long faces - they had killed a few animals and the vaccine was not working! After a 2 day trip across the dessert, we got to the experiment site and proceeded to work with a team of 12 Chinese and Uyghurs doing necropsies. It turned out that the problem was that they were counting all the lesions they could find - lung worm lesions (Muellerius capillaris) in the lung, and Taenia *hydatigena* spots in the liver. After that was sorted out, the vaccine was shown to work brilliantly, but it was just as well that I was there! After that, I supervised all the necropsies during the next few years.

Another China Adventure Later, a large scale field trial was set up on the border with Kazakhstan, where they had about 1 million fine-wool merinos. This time, the vaccine was reported to be killing the lambs. They had divided the lamb flock into those born first (controls) and those born later (vaccinates). There were a lot of deaths in the vaccinated flock. We did a set of necropsies and proved that the vaccine was working perfectly, so why were the lambs dying? It finally turned out that another disease was common later in the Spring season. The later vaccinated lambs were exposed to this, but not the earlier control lambs, which had been taken away and grazed as a separate flock. So that was another disaster nullified.

Chilean Adventure

Coyhaique Panamerican hydatid

conference.1992 People from Chile, Argentina and Uruguay. First night travelled to Region 11 of Chile, to Rio Cisnes, farmed close to a million corriedale sheep. Midnight supper was chunks of sheep roasted in their own fat. Bread was dipped into the fat. Very, very cold night for those who wanted to sleep. Vets had been riding for up to 3 days to get to the conference, so no time wasted in sleeping. Final night at Puerto Aisen was a seafood curanto. Layers of different shellfish on hot rocks in a hole, and covered like a hangi. Most interesting was the monster barnacles - the flesh came out like a sausagesized piece of mucus. I as the guest of honour, had to eat the first one. Don't remember much after that except dancing all night with beautiful Chilean vets (girls)! Went to Uruguay to report on the hydatid control there, and travelled all over. It was obvious that Health did not talk to Agriculture, so an intensive dog dosing and purging over 10 years had made very little progress in hydatid control. Had an interview with the President, and got a good message reported in the papers. The President said that most farmers, including himself, used dogs on the bed to keep them warm. He

talked about 4-dog nights in the middle of winter. A good recipe for hydatid infection! Six years later in 1998 at a Hydatid conference in Argentina (Barriloche) I was able to tell them that scale-up work to GMP production has been completed in New Zealand. Two big vaccine firms in Buenos Aires (Biogenesis and Rosenbusch) then wanted the licence to manufacture. While we were negotiating this, the Argentinian economy collapsed. No further interest in making the vaccine, but would like to buy it from another country. New Zealand GMP factory at IRL was now dedicated to antibiotic manufacture - nothing else available in New Zealand. In 2002 I attended another Chilean Hydatid conference. I took Vaccine from New Zealand to be tested by the Veterinary University for SAG, Chile (Societe Agricola y Ganadero). Results excellent, Chile wanted it. We attempted to set up a production facility with a local entrepreneur, but it failed due to lack of finance. Five years later in 2007 - South American Hydatid meetings push for the vaccine to assist their control procedures. Tecnovax Argentina takes up the challenge and is supported by SENASA, the registration authorities.

A Tibetan Adventure

When we started work in the Tibetan area of Sichuan (NZAID project), the aim was to sort out hydatid control



procedures for this backward area, where there were no trees, being all above 4000 metres and in parts over 5000 metres, and where yaks and Tibetan sheep and goats were raised. I took Trevor Shakes with me to help out, and he was very good but suffered badly from altitude sickness. We put him on Oxygen for the afternoons and evenings, and then he could work for about 6 hours the next morning. It did not get any better during the 8 days we were up there, and he only recovered when we got down to 2000 metres again. (As a sideline, this NZAID project set the scene for the western China hydatid control 20 year program, which has now started).

The Tibetans eat tsampa as their main food, with Chaki (dried meat cut from animals that have died naturally), and rancid butter tea. The tsampa is made by dry-cooking barley seed, then crushing it and mixing it with yak butter oil in the bowl that each Tibetan carries in their clothes somewhere. The chief of health services mixed some up for me, and after he had rolled it to a ball in his hand and given it to me, the hand was quite clean, in

comparison to his other hand. Of course I had to eat it, or else our whole program would lose face. I got sick after that but



not too sick to stop working. It took 3 weeks to recover. Tibetans do not usually wash their hands.

A Mexican Adventure

We were having a conference at San Miguele de Allende, an old Spanish town outside Mexico City. When visiting the Bazaar, who should I meet but Rosemary Penwarden from Wallaceville. She was travelling around with her boyfriend, and wanted to see this typical old city. After the conference I was in town for the long weekend -invited to join family party to the coast. Mexico City to Acapulco overnight. Shrine about every Kilometre due to people killed on the road. All through the night had to avoid groups of people and their animals. Saw the lovely beach at Acapulco, and the paragliding off the water and the diving off the cliffs, and then proceeded to Zihuatanejo, and Ixtapa (where there is a very big Club Med), and took a boat to tropical Ixtapa Island where we camped and snorkelled. About midday the Club Med arrived in heaps of boats and we drank rum in fresh coconuts until they left a few hours later and the Island was ours until midday the next day. My host had organised for some entrepreneurs to gather clams for us off an isolated beach, so the second night we had a clam bake. My vivid memories are of the

Boobies and frigate birds nesting on the island, and of the human boobies exposed to the sun on the beach. (and of being stopped and searched 3 times on the way home by local militia.)

A Kirghistan Adventure

To get to Kirghistan, I had to fly into Tashkent in



Uzbekistan and then to Bishkek(Frunze) in Kirghistan, on the way to Lake Isse Kul for a Russian conference. 10 hours in Tashkent airport. No food. Lake Isse Kul was used as a resort by the Soviets. Dozens of individual resorts showing signs of former splendour but now decaying and empty. However, ours was still humming. Conference was in English and Russian. The lake is full of fish and swimming and boating was good. Most exciting thing was being given a Kirghiz hat.

A Kazakhstan Adventure

Flew to Beijing to get an entry visa from the Kazakh Embassy. Contrary to internet reports, it was only open on Tuesdays and this was Wednesday! Talked my way onto the plane, explaining that would get a visa at the airport in Alma Ata. Arrived there, but no can do! Told to take the next flight back. After waiting for 4 hours till 2:00 in the morning, enquired if maybe surely I could purchase a visa. \$400US and the job was done. When it came time to leave, was told cannot leave! You have an entry visa but no exit visa! Everybody got the bus out to the plane, while I was suggesting there might be a way to get on the plane if I purchased an exit visa. \$400US later I was given a personal bus and raced to the plane to the front stairs left down for me. Sat in business class for the short flight over the mountains to China. Since the breakdown of the USSR, the government servants have had to work out ways to support themselves, so bribery or (payment for services to be rendered) is a way of life.

A Kazakh Adventure The Director of the Animal Husbandry Division have arrived to hear about the results of



the vaccine trials. The Beijing group have arrived on Saturday night so Sunday is a holiday, and it is Summer time. A visit to a Kazakh village is organised. The Kazakh population number about 1 million. Long ago they have come through the mountains from Kazakhstan, which has a boundary with China, and these people are of Central Asian descent.

We started off in 4-wheel drive vehicles from Urumqi, capital of the Western Province of China called Xinjiang. The centre of Xinjiang Province is the Taklamikan Desert, which is

on top of prodigious oil reserves. The people live in the regions surrounding the desert. Everything is frozen for the 6



months of Winter, but during the Summer water flows all around from the melting snows on the high mountains. In April the shepherds take their herds of animals to the mountains, and return during September. After 3 hours of driving we arrived at the Kazakh village and were welcomed by the head men and women. We all were given black tea mixed with mares milk. We then watched while a fat 2-year-old sheep was caught and killed, and the good meat cut off for a barbecue. The meat was skewered and seasoned with a special mix of spices, and then immediately cooked and eaten. This was just a snack, but extremely delicious. The rest of the sheep, minus the offal and skin, was thrown into a big pot and simmered for several hours. During this time we were entertained by some games: first some wrestling and then horse games. Every person in the village of about 100 people had a horse, so about 50 were soon mounted- mainly the young men and girls. The first event was sheep pulling where one team tried to maintain possession of the sheep skin while the other attempted to get it. In the end the competition came down to two fit men who each had a hold on the skin and attempted to unhorse each other. The next event was demonstrations of skill and speed where everybody raced up and down the valley, the girls dropping the odd scarf for the men to pick up from the saddle as

they galloped by - amazing that they could do it! The activity culminated in girl chasing, where groups of about 6 men might chase 3 girls, hoping to catch one before they reached the camp. Usually the girls, being lighter and maybe having better horses, were very hard to catch. Only the more mature girls seemed to end up just being caught at the end of the track.

After the dust had settled and the horses tied up, it was deemed that the sheep had been boiling for long enough. The meat, bones and head were tipped out onto a dish to cool, and the picnic party all entered a large Yurt (a round house made of mainly animal skins). Half of the floor area was raised for sleeping on and for storage of the family possessions, and the other half was for cooking etc.) We all took off our shoes and sat on the raised area on hand-woven carpets to be entertained. First we took chunks from cartwheels of bread, and then the sheep arrived. Each person used their personal knives to cut the meat from the bones, and eat it and we were offered kumis (fermented mares milk) which was very nice, and more tea, accompanied by Kazakh songs and music. Although the Kazakhs are Moslems, their religion does not go as far as prohibiting alcohol, and none of the girls covered their heads, except with pretty hats.

I was deemed the "honoured guest" and so was offered the great delicacy. I thought I was going to get the eyes, but no- it was the lips. This was a little disconcerting, because I had seen these lips grazing not long previously- however, I cut them off and ate them. They were a bit hairy, and the papillae from inside the mouth had an intriguing texture. Luckily, the eyes went to the next most important guest. (Designated vehicle drivers are not allowed to touch alcohol, so we all got back safely).



David receiving his letter of Honorary Membership from Colin



30th World Congress of Biomedical Laboratory Science

> 18 – 22 August 2012 Berlin, Germany www.ifbls-dvta2012.com

Caption Competition

Following on from the caption competition at the Conference – who has a tell-all caption for this?

Entries to Caroline Costall for inclusion in the next newsletter

WHAT'S YOUR DIAGNOSIS?

There was no correct answer received to what this was. So the answer, provided by Ian Scott is... *Proliferative sparganosis – proliferation of small, abnormally shaped plerocercoids (spargana) of a Spirometra spp. tapeworm.*

A rare finding in parts of Australia in dogs with or without clinical signs (only 5 cases in the literature). Typically the plercocercoids may be present in the abdominal cavity, sometimes within the visceral organs themselves.

The plerocercoids will not develop to a mature tapeworm if given to a suitable definitive host, and a viral infection is suspected.

Spirometra erinacei (erinaceieuropaei) was found in feral cats trapped at the Fielding dump in 2004 and has also been recovered from two dogs imported into New Zealand from Australia, but has otherwise never been detected in the domestic pet population.





NOTICE FROM THE ROYAL SOCIETY OF NEW ZEALAND

The Royal Society is seeking views on the operation of the **Hazardous Substances and New Organisms Act** (<u>http://www.mfe.govt.nz/laws/hsno.html</u>) in terms of its impact on research involving new organisms (including, but not limited to, GMOs).

Background

New Zealand's Hazardous Substances and New Organisms Act was introduced in 1996 to assess and decide on applications to introduce hazardous substances or new organisms into includes New Zealand. This genetic modification of plants, animals and other living things in New Zealand. Over the following years there have been a number of Government consultations and a Royal Commission, which have amended the legislation, and to which the Royal Society contributed to in 2002 (http://www.royalsociety.org.nz/publications/po licy/2002/response-to-hsno-act/).

During these reviews the research community expressed concern over the impact of the legislation on contained laboratory research which was sought to be addressed in the New Organisms and Other Matters Bill in 2003. This simplified the assessment process for low-risk genetic modifications to improve efficiency and reduce compliance costs. Whether or not an organism was considered low-risk depended on the type of organism, the sorts of modifications being made to it, and the level of containment. Under the amended law, research institutions conducting low-risk GM research in the confines of the laboratory were able to make applications for approval on a project basis as opposed to making a separate application for each organism produced during a particular piece of research. Other changes allow the Environmental Risk Management Authority (ERMA) to delegate decisions on the importation of low-risk genetically modified organisms to Institutional Biological Safety Committees (IBSCs).

In 2005 the Hazardous Substances and New Organisms Risk Species (strains of Microctonus aethiopoides) regulations came into effect, which identified all strains of the parasitic wasp Microctonus aethiopoides, other than the Moroccan strain, as a risk species and were now new organisms for the purposes of the Act. Then in 2008 there was a subsequent Government consultation and legislation amendment around information regulations for GM conditional release applications. In 2009, the Hazardous Substances and New Organisms (Organisms Prescribed Not New Organisms) as Regulations recognised the pest fungal organism Puccinia myrsiphylli as no longer new for the purposes of the HSNO Act 1996, and therefore not requiring an approval from the Environmental Protection Authority (EPA) for importing, developing, field testing or releasing that organism. In 2011 six further pest species were added to this list as no longer new: Bactericera cockerelli. Liberibacter Candidatus solanacearum. Orchamoplatus citri, Varroa destructor. Nasonovia ribisnigri, Frankliniella intonsa.

Consultation focus

The Society would welcome views on members' and Fellows' experiences with the Act in their research, in terms of the cost of compliance and any impact on innovation for both laboratory-contained and field research, and their experience of the balance of risk versus the level of regulation involved compared with international best practice. Submissions to the consultation should be Dr Marc Rands sent to (marc.rands@royalsociety.org.nz) by 2 December 2011.

CONFERENCE CAPTION WINNERS



Isabel Castro: "Would you like some uropygial gland gratin?"

Tony Rhodes: [I've lost Tony's caption, but it was very funny – something about Zara Phillips and two large baps.]

Highly commended: **John Moffat** "F\$%# off **I'm** not eating that!"



Lawrie McMurtry: "Debating the size issue is fairly black and white!"

Haseeb Randhawa: "Thank you God for this bounty of food. Please let it be free of anisakids and tetrabothridians" "Just shut up and take your damn praziquantel".

Highly commended: John Moffat "F\$%# off I'm not eating that!"

CITATION FOR HONORARY MEMBERSHIP

It gives me great pleasure to be before you today to propose the election of **William Anthony George, Tony, Charleston** as an Honorary Life Member of the NZSP.

When I took up my teaching position in Veterinary Parasitology at Massey in 1999, I became only the 5th person to teach this subject at Massey. Of course, Tony continued to teach for a further 3 years, retiring eventually in 2002, and in those 3 years I was very fortunate to have the opportunity to work with Tony, getting advice in teaching, as well as in research. A valued colleague of course, but dare I say good friend as well?

As I said Tony retired in 2002, 38 years on from his joining the Faculty of Veterinary Science. In 1964 the Faculty was still at the tender age of just two and thus Tony taught the first ever Veterinary Parasitology classes in New Zealand.

In 1997 I flew from Heathrow to New Zealand in relative comfort, but back in 1964, Tony took quite a bit longer to get here travelling by boat. Tony grew up in the UK going to school in Devon, before attending Bristol University, graduating Bachelor of Veterinary Science with honours in 1959. Obviously Bristol was the happening place to be at that time because Tony stayed there for his PhD, with which he graduated in 1962, in Veterinary Anatomy! Tony's next position was however as a parasitologist, a Scientific Officer at the Moredun, near Edinburgh. Tony's 1965 paper on the pathogenesis of experimental haemochosis in sheep, is still to my mind one of the best papers ever written on the subject.

But clearly it has been to the benefit of New Zealand, and its animals, that the vast bulk of Tony's career was spent within its shores.

Tony has actively researched in just about every major aspect of veterinary parasitology, doing some of the pivotal research in NZ on sarcocysts, liver fluke - the parasites of cattle sheep pigs horses dogs and wildlife species as well, with Tony being one of the very few scientists in New Zealand skilled in the morphological identification of parasite species.

Tony has supervised 12 PhD students, including 2 people currently in this room, and 19 other postrgraduate students. He has published over 120 peer reviewed papers, full papers in refereed proceedings, books and chapters as well as numeroud other publications. Although he retired in 2002, Tony currently has 7 papers in press.

In 1998, when the Vet Faculty transformed into IVABS, Tony became the Academic Director of the BVSC degree, a position which in any other parallel universe would be called Dean.

Tony has served in innumerable roles in tertiary education committees both within Massey University and at the national level.

Was a Branch Chairman of the Association of University Teachers (1986-7).

And served the Veterinary Council of New Zealand in numerous roles including Deputy Chairman (98-99).

Pertinent to this Society, Tony was our president 1980-82.

Bill and I often lament how little we have seen Tony since his retirement, but I know that he has many other interests and we must compete for his time.

It is fitting therefore given Tony's interest in philately that I ask you to give your "stamp" of approval and honour Tony with the award of Honorary Life member of the NZSP.

Ian Scott, NZSP AGM, 27 October 2011

























