

The New Zealand Society for Parasitology

NEWSLETTER NOVEMBER 2010

http://nzsp.science.org.nz

38TH CONFERENCE 28 – 29 OCTOBER 2010

ELECTION OF OFFICERS

Congratulations to the following:

President	Colin McKay	Proposed / Seconded: Ian Sutherland / Allen Heath
Vice President	lan Scott	Ian Sutherland / Tania Waghorn
Treasurer	Dean Reynecke	Ian Sutherland / David Heath
Secretary	Tania Waghorn	Colin McKay / Paul Mason

CONFERENCE 2011

This will again be held in the Palmerston North area due to the numbers of members working in this region. A number of members have already volunteered their services to organise this event.

SUBSCRIPTIONS

These remained the unchanged at \$20. Please note that there is a new Treasurer. A subscription notice is appended to this newsletter.

FROM THE PRESIDENT

Firstly thank you to all who attended the 38th Annual Conference of the NZ Society for Parasitology. While the number of delegates was down on previous years I'm sure all those who were there enjoyed the both quality of the presentations and the sometimes robust (but good humoured) debate that followed. One of the keys to holding a successful conference is the support of sponsors and to that end, on the behalf of the society, I would once again like to thank **Pfizer, Intervet Schering Plough, VetPack, Gribbles, Novartis** and **Bayer** for their ongoing support.

It is important to note the degree of consolidation in the animal health industry in recent years. Pfizer and Fort Dodge have merged and shortly Merial -Intervet will be formed - a short time ago this business comprised four companies - Ancare, Merial, Intervet and Schering Plough. This week it has just been announced that Bayer are purchasing Bomac.

On behalf of the society I would like to extend a message of support to all members who are faced with change and uncertainty during the upcoming merger processes.

Colin

ExecutivePresident:Colin McKaycolin.mckay@novartis.comVice President:Ian ScottI.Scott@massey.ac.nzTreasurer:Dean Reyneckedean.reynecke@agresearch.co.nzSecretary:Tania Waghorntania.waghorn@agresearch.co.nz

DISTINGUISHED PARASITOLOGIST AWARD

In the August newsletter there was a note about the inaugural World Federation of Parasitologists' Distinguished Parasitologist Award, one of which was awarded to **David Heath**, AgResearch. The presentation of the certificate was made at the conference in Palmerston North by the out-going president, Ian Sutherland.

HONORARY MEMBERSHIPS

At the 37th Annual Conference **Allen Heath** was nominated for Honorary Membership. At the time of his nomination it was suggested that Allen should be the after dinner speaker at the conference dinner the following year.



The "script" is included in this newsletter. Has this set a precedent for future recipients?

At the AGM of the 38th Conference, two further nominations were read and a secret vote taken. Honorary membership has been awarded to **David Heath** and **Alex Vlassoff**. Their commendations are included in this newsletter.

Nomination for Honorary Membership

Alex Vlassoff

Alex Vlassoff is a foundation member of the Parasitology Society. The first meeting for this was on the 21st August, 1972, Victoria University, Wellington.

Alex was nominated as vice-president in 1999 and 2000 and his term as president was from 2001-2002. He was a member of the committee in 2003.

Alex graduated from VUW BSc in 1965 and BSc (Hons) in 1966. Alex started work in the public service on the 05/09/66 at Wallaceville working for Dr Lloyd Whitten and then Dr Ron Brunsdon.

He has contributed to, co-wrote and was a primary author for many peer reviewed papers. Additionally he is the author of several articles in Parasitology Workshop Publications and he was routinely asked to contribute to numerous farming magazines on parasite preventive measures. Alex's expertise was also sought by MAF regulatory bodies to review claims by commercial companies on the efficacy, etc of their drenches.

Alex has contributed a lot to the understanding of parasite larval development in New Zealand and also to the breeding of parasitic nematode resistant and resilient sheep (& parasitic nematode resistant goats) in New Zealand, as one of the founding scientists working in this area of research. The flocks bred as a result of this work were also used by both Immunoparasitology and molecular biology groups in Agresearch and genetic link-ups were done with some Romney breeding groups.

Although he has retired from fulltime work he still acts in an advisory capacity to farmer mentor groups and has been the author of peer reviewed papers since his retirement.

Alex is still an active member of the society willing to give his views and relate to parasite trials that may be revisited due to newer technologies. He would be an ideal recipient of Honorary Membership to the New Zealand Society for Parasitology.

BOOK REVIEW

"Parasites: tales of humanity's most unwelcome guests" by Rosemary Drisdelle

University of California Press, 2010. ISBN 978-0-520-25938-6

I found this book in the local library (Selwyn District Council Library) as a new acquisition. So thought it must be within my field of interest and took it out. The author is, I quote "a writer and clinical parasitologist living in Nova Scotia." She writes well, it was a good read, and I enjoyed reading it. It covers much of the same territory as Zimmer's "Parasite Rex", but with the addition of *Elaphostrongylus rangiferi* in deer (which reflects the Canadian perspective) and a few other topics. She does emphasize the social significance of parasites, particularly to humans, which is not a bad thing.

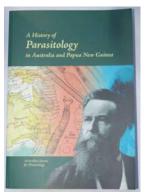
There are extensive reference and footnote lists, but as far as I can see after a quick look the only NZ reference is to JC Beaglehole's "Life of Captain James Cook". I don't think Australia fares any better. I would have expected some mention of Mike Gemmell (he only gets a co-author citation) and David Heath's work with *Echinococcus*. And, ahem, there is no reference to my work with *Elaphostrongylus*. The book is poorly illustrated. The few illustrations included are very low resolution and would not be acceptable in major daily newspapers in NZ, in a specialist book their quality is unacceptable.

Now I come to my major concern about this book. It is supposably written for a popular audience, but this is not the way it reads. It appears to have really been written for the author's colleagues and uses many scientific terms without definition that would have no meaning to the lay reader. For example, a knowledge of scientific nomenclature is assumed, the term "trophozoite" is used without any definition, and there are other examples.

This is a book that most parasitologists will enjoy, but I expect it will be of little interest to the general public who will find it difficult to read.

Dr Paul Mason Consultant Parasitologist 16 September 2010

New Book



A History of Parasitology in Australia and Papua New Guinea

Editors: I Beveridge and PJ O'Donoghue Copyright ASP 2009; ISBN 978-0-9806338-0-1 Publisher: Blackburn, Vic. : Raw Publishing, 2009 Pricing: \$30 ASP members, \$70 non-members (Details on the availability of this book are still being located)

UPDATED CHECKLIST

A checklist of helminth and protozoan parasites of birds in New Zealand that was published over 10 years ago has recently been updated.

A copy can be downloaded as a PDF from:

http://www.webmedcentral.com//article_view/705<http://www.webmedcentral.com/article_view/705> ...from Phil McKenna

LAUNCH OF CARLA

Press Release from AgResearch.... "Sheep farmers to benefit from parasite advance from AgResearch" *Thursday, 16 September 2010*

AgResearch today launched a revolutionary technology which measures natural immunity to internal parasites in sheep more quickly, accurately and easily than existing tests. The CARLATM Saliva Test, which measures protective antibodies to worms, has been used on over 7,000 animals this year. Now this time-saving technology is available to all sheep breeders directly from AgResearch.

The CARLA[™] Saliva Test results from research and development work within AgResearch for over six years, funded by Ovita and Beef+Lamb New Zealand.

Agriculture Minister Hon David Carter officially launched the advance today at the Hopkirk Research Institute in Palmerston North.

Parasitic worms are a significant problem for livestock farmers, causing illness for the animals and costing an estimated \$300m each year in lost production and treatment costs.

Richard Shaw, Senior Scientist with AgResearch's Animal Health Section, who has developed the CARLATM test, said at the event "This new technology will generate significant returns for sheep farmers countrywide."

"Sheep breeders are now able to identify their naturally parasite-resistant sheep and select them for breeding. CARLATM will generate income for the industry and for New Zealand.

"The CARLA[™] Saliva Test was successfully trialled last season with 14 farmers and over 7,000 sheep. Saliva sampling itself takes about 30 seconds per animal; a dental swab is rubbed in the cheek pouch for around 7 seconds and then placed in a labelled vial," said Richard Shaw.

Some sheep produce more CARLATM antibodies than others. The Saliva Test is a simple method to test for the presence and level of these protective CARLATM antibodies in saliva.

The test could replace worm egg count testing which requires the collection of sheep faeces, and can be carried out more quickly. Testing has shown that an efficient sampling team involving three people could sample over 120 animals an hour. With electronic identity tags and barcode systems, this can be even faster.

Background

CARLA[™] is a molecule found on the surface of all internal parasite larvae and is only present for a few days after worms are ingested. CARLA[™] antibody is produced by the sheep's immune system, and is one of the major mechanisms by which the animals become protected against parasite infection. In immune sheep, high levels of CARLA[™] antibodies are present in saliva and gut mucus.

There is a large variation in the time at which spring-born lambs develop a protective $CARLA^{TM}$ response. Typically:

- about 10% of animals develop CARLA[™] antibodies by February
- in April, 30-40% of lambs will have high levels of CARLA[™] antibodies
- in June, 50-60% of lamb will have high levels of CARLA[™] antibodies

Eventually, most sheep develop some sort of protective immunity, although even in flocks with high challenge there are still 10-20% of animals where CARLATM levels remain very low.

The timing and strength of an individual CARLATM antibody response is strongly influenced by an animal's genetics. The heritability of the CARLATM antibody response is high (about 0.3 or 30%).

Farmers wanting to utilise CARLA[™] can phone 0800 4 CARLA (0800 422 752) or email: <u>carlasalivatest@agresearch.co.nz</u>



Front left to right: The Minister for Agriculture David Carter, with Sheralee Cleland and Richard Shaw, discussing the fine points of saliva sampling. Richard holding long nose haemostat forceps with cotton roll as used for collecting saliva from sheep and other animals; a line-up of distinguished guests.

PASSING OF PROF JOHN SPRENT

From the ASP website ...

SPRENT, John Frederick Adrian

Late of Moggill. 23.07.1915 – 01.11.2010 Loving Husband of Mary and Muriel (decd). Father of Jonathan, Anthony and Elizabeth (decd). Poppy to his Grandchildren and Great-grandchildren. Friends and Relatives are invited to Johns Funeral, to be held at Metropolitan Funeral Home Chapel, 224 Newnham Road, Mt Gravatt, Tuesday, 9th November, 2010, commencing at 11.30 a.m. No flowers by request, donations to the Red Cross would be appreciated.

We regret to advise members that Emeritus Prof John Sprent passed away in Brisbane on Monday 1 Nov 2010. Professor Sprent made outstanding contributions, over more than 60 years, to education, research and scholarship within the discipline of Parasitology. He was without doubt the foremost parasitologist in Australia and was recognized both nationally and internationally for his achievements. Prof Sprent was Foundation President and Fellow, Australian Society for Parasitology; Foundation Fellow, Australian College of Veterinary scientists; and from 1974-93 was Editor in Chief of the International Journal for Parasitology. An obituary for Prof Sprent will appear in the next ASP Newsletter and a substantial tribute article will appear in IJP in the not too distant future.

Nomination for Honorary Membership

David Heath

David was born in April 1938 in Australia in the state of Victoria and the city of Geelong, the second largest city in the state and the largest regional centre with a population now of around 170 000. David attended Geelong Grammar before heading north to Armidale for university studies.

David is the son of an orthodontist who had married the daughter of a Geelong delicatessen owner. As a youngster David shot rabbits and skinned and cleaned them for his grandparent's shop, leading it seems to a lifelong interest in hunting and food. In recent years he extended his gustatory interests into wine, having imbibed it for many years (and still doing so), and based on long and potentially toxic experience with home brew, he decided to try and make wine himself. This he achieved with mixed success, but with his usual boundless enthusiasm. In fact David's enthusiasm is a heady brew in itself that has repaid its long cellaring, can be taken with confidence, and has only the slightest aromatic hint of old running shoes and cycling lycra. David has been a practicing researcher for nearly 45 years. His working career began when he was undertaking study for a B. Rur. Sc. at the University of New England at Armidale and was a demonstrator in microbiology in the Faculty of Rural Science. Following graduation in 1963 he obtained a position as Experimental Officer in parasitology with CSIRO, finishing his masters at the same time and graduating in 1966. His thesis topic was 'Studies on the Ecology and Epidemiology of Gastrointestinal Nematodes of Sheep'.

He then became a Wool Board Doctoral Student at ANU, completing his PhD at the Australian National University and graduated in 1970 with a thesis entitled 'Developmental Biology of Larval Cyclophyllidean Cestodes in Mammals'.

After a year as a Post Doctoral Research Fellow at the Institute of Parasitology in South Africa, David returned to Australia in 1971 and became Senior Research Fellow in immunoparasitology at ANU in Canberra.

Then, at the grand old age of 37 he finally saw the error of his ways and migrated to New Zealand in 1975 to take up a position as Scientist and head of the Hydatids Research team at Wallaceville, which developed later into immunoparasitology and molecular parasitology. In 1994 as Senior Scientist and Programme Leader, David continued research into molecular parasitology, immunoparasitology, parasite vaccines and parasite ecology and epidemiology.

David has had an illustrious career being part of the team that produced the world's first defined antigen vaccine against Taenia ovis, sheep measles. The recombinant vaccine was made by the Melbourne members of the team, and David and Gavin Harrison did vaccine trials and antigen purification at Wallaceville. Later, the team, with David's collaboration, produced the second geneticallymodified anti-parasite vaccine, this time against hydatid disease, Echinococcus granulosus. Finally he was instrumental in the development of another variant of the sheep measles vaccine. All of these vaccines were patented and scale-up technology developed to make them available for use in field trials. All of this work underpinned the successful production of a vaccine against *T. solium* by Marshall Lightowlers' team in Melbourne along with Belgium and Cameroon collaborators, which in a trial in Cameroon eliminated transmission of the tapeworm to pigs in the field.

Between 1997 and 2006, David planned, supervised and provided technical input into an NZAID/China cooperative project on the control of hydatid disease in a Tibetan region where 10 -15% of the human population was infected with hydatid disease. The hydatid vaccine was an integral part of the programme.

The final phase of his working life to date has been as a contract research scientist for AgResearch following his long-time interest in parasite vaccines and Chinese food and beverages. David's efforts in China (including over 30 visits to that country) have been rewarded twice by the Chinese. The first award, the 'Golden Peak medal' was in appreciation for his support of economic and social progress in Sichuan Province, and the second, an even more prestigious award, and the highest given to foreigners, was the Friendship Award.

In recent years David was also associated with a research programme that sought a biological control agent for possums, based on the use of recombinant technology to engineer possum internal parasites that could be vectors of disease agents.

David became a member of the NZSP in 1975 and was President over two terms, 1978/79 and 1979/80.

David's long career has been marked by scientific acumen, supported by his drive, enthusiasm and dogged determination. He has long been a prominent figure in hydatid and sheep measles control programmes in NZ and has made many visits to other countries in conjunction with the Hydatid Control organisations of those countries. He has communicated his findings numerous times at conferences worldwide and also spent many years speaking to hydatid control officers during their training.

He has had demonstrated success in devising, leading and carrying out research programmes, attracting funding for such work and communicating results in scientific journals and at national and international conferences and he has developed a well-deserved international recognition. Taken all round David is fully worthy of election as an Honorary Life Member of the NZ Society for Parasitology.

8TH INTERNATIONAL CONFERENCE ON BIOTHERAPY

This conference was held in Los Angeles on 11 - 14 November. A session on helminthic therapy was reduced to a single paper following an accident in the UK involving the presenter Dr David Pritchard.

Attached are the abstracts - only Debora Wade's was presented.

HELMINTHIC THERAPY

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Title: A critical appraisal of worm therapy **Author(s):** Pritchard D **Institution(s):** School of Pharmacy, Nottingham University, UK

Worm therapy is medically prominent, through the use of whipworm ova in autoimmune disease and allergy, and through the sale of the human hookworm *Necator americanus* as a potential therapeutic agent.

This presentation will critically evaluate the

epidemiological and experimental evidence which led to the adoption of helminth therapy, then summarise data from some completed trials.

Clearly, there are strengths and weaknesses associated with the evidence supporting worm therapy, leading to a number of pertinent questions.

Is the adoption of worm therapy the result of flawed thinking?

Alternatively, does worm therapy offer a therapeutic breakthrough to many patients, as yet unfulfilled? If so, how can worm therapy be delivered to patients

effectively, to maximise therapeutic benefit?

not present

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Title: Helmintherapy - A patient's journey Author(s): Wade D Institution(s):

I have suffered from Crohn's disease for over 22 years. In 2007, I ran out of drug options, so I decided to try helminth therapy. I purchased 10 *Necator Americanus* (hookworms) through an independent company, and therein began my experiment with worms.

Over the next 3 years, I experienced the successes of remission, and the frustrations of side effects (fever, diarrhea, edema, reactive arthritis). Repeated loss of my worms has necessitated repeated administrations of therapy. Most frustrating of all, however, has been the logistics of navigating the health care system to obtain treatment: physicians uninformed and unwilling to learn or explore; suppliers few and far between; a regulatory system placing large burdens on those who would research or produce medicinal helminthes. High financial costs squeeze everyone involved in helmintherapy . . . but especially the patients, who ultimately pay those costs.

These and other difficulties have led to my own experimentation, and have led me to share my experiences with other patients. Now, by sharing my journey with you clinicians and researchers in the field, I intend to energize you to continue your efforts in helmintherapy, and I intend also to convince you to be more creative and empathic in your approaches to treating our diseases in a way that we can live with.

Due to FDA pressure, the supplier of the hookworms has left the USA and now operates out of Tijuana, Mexico. Debora has paid USD \$7,000 for three treatments of hookworm which are supplied on a bandaid. Debora has also administered *Trichuris suis* ova with varying results.

Is there a future for this sort of treatment in New Zealand?

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AFTER-DINNER SPEECH NZSP CONFERENCE, PALMERSTON NORTH OCTOBER 2010

The question of an after-dinner speech to be presented by newly-elected Honorary Life Members has been exercising my mind almost since I heard that David Heath kindly suggested the idea at last year's AGM when I was not present to speak to the motion.

I have endured and enjoyed after-dinner speeches. Most are, and should be, short and many aren't. Some were witty or perhaps should have been, and others were anything but.

After-dinner speaking is not an easy medium of either communication or entertainment. Usually,

alcoholic beverages have been consumed during the dinner and by the time the speaker rises to his feet, both he and the prospective audience are fairly well primed. In which case he forgets his notes or does not deign to use them, having reached a state of inebriation where he thinks he is nature's gift to both oratory and humour and is usually wrong on both counts.

There is however some comfort in the fact that his audience has reached a similar level of intoxication such that they would laugh at almost anything, although they are also not far from the state of mind where hurling abuse could become general. Alternatively the speaker can be so concerned about his imminent talk that he has not taken a drink and in fact can hardly eat for apprehension, and when he stands to speak a form of ascending motor paralysis has gripped his limbs, lungs and larynx and before he expires he blurts out his talk in a strangled falsetto and quickly sits down again before the audience has realized he has even started.

I hope to fall somewhere between the two extremes, but before I do fall I must relay to you my preparations for this moment. As you may know I do like to play the fool at times and thought that I could try a humorous approach for this evening.

My first inclination was to write you a story I could read and I started one with a parasitological theme, similar to one I had written for the Entomological Society. That one was of the genre called an Insective Story, as it involved criminals, cops and a femme fatale, all insects. The story for tonight was to have a wild-west theme and I intended to read all 8 to 10 pages of it, but then rejected the idea on the grounds that parasitologists are bigger boozers than entomologists and as a consequence have a much shorter attention span. Furthermore, you are a less refined lot and might start throwing things when you got bored.

I grappled with other ideas such as song titles based on parasitological puns, limericks in a similar vein, and even songs. You have no idea how difficult it is to find parasitological puns or themes in musicals such as Miss Saigon, Cats, Chess, Oklahoma, Phantom of the Opera and the Rocky Horror Show to name but a few that my fevered mind considered.

Although I have to admit The Sound of Music was fairly profitable:

My favourite parasitological things from the 'Sound of Mucous'

Mucosa and villi and long duodenums, Rumens and colons and samples of semen, Little lambs' testicles strangled with rings, These are a few of my favourite things.

Glass slides and cowhides and smelly effusions, Jars full of formalin and shit in solution, Cultures of larvae, flies flapping their wings, These are a few of my favourite things.

When the cow shites, when the sheep shits, When my finger's green, I simply remember my favourite things And try to suppress a scream. I even tried constructing a few jokes, but these were universally awful as you will find: For instance: if a dipsomaniac trematode cured itself of the shakes would it be a fluke?

And, even more excruciating: why would a tapeworm measure your inside leg? Because he would be looking for your echinococcus.

Did you hear about the foot that was a leg end in its own lifetime?

Song titles and karaoke

In desperation I even tried the idea of a parasitological karaoke and with the few examples here I am really showing my age:

South Pacific

I'm going to wash that drench right outta my hair, I'm going to wash that drench right outta my hair and be careful where I spray. **Grease** You're the dip that I want, yeah, yeah, yeah baby.

Rocky Horror Show Let's do the egg counts again

Take a seat at the bench, Turn on the microscope light, Get the McMaster slide, Fill it up just right, But it's the counting eggs that really drives you insane, ane, ane ane ane, Let's do the egg counts again. Let's do the egg counts again.

Place a jar to your left, And a pipette to your right, Put on a cover slip, And focus up real tight, But it's the counting eggs that really drives you insane, ane, ane, ane, Let's do the egg counts again. Let's do the egg counts again.

Then something from WWII with Vera Lynn

There'll be bluebottles over the corpse of old Rover tomorrow when he starts to pong

Green flies will leave their sheep

Brown flies will start to cruise

And Rover will start to sink in his own little pool of juice.

There'll be bluebottles over the corpse of old Rover tomorrow when he starts to pong.

Refugia Heartbreak Hotel; Elvis Presley

When my resistance left me, I found a new place to dwell;

Jokes

It's the sheep at the end of the paddock there, it's my refugia as well; I'm feeling so susceptible baby, I'm feeling so susceptible, I'm feeling so heterozygotic I could die.

Nancy Sinatra/ Gumboot serenade

These boots are made for walking, They're deeper than the shit, But one of these days when these cattle scour I'm going to sink right down in it; come on boots keep splashing.

Her father Frank always did things his way

Now boots, I've had few, Some too tight to mention, And some I've worn right through, And all with good intention, But when it's wet and milking's late, And you're alone out on the highway, I'll tell you this, when bringing stock in, You'll skid in cow spray.

I was by this time getting desperate and started thinking about all the things a parasitologist was and Gilbert and Sullivan's song from the Pirates of Penzance came to mind. You must remember, 'I am the very model of a modern major general' Tom Lehrer did the Periodic Table to the same tune. Anyway, this is what I came up with.

Parasitologist perchance

I am the very model of a pedantic Parasitologist, For reciting binomials I am never an apologist, I can give you all the names of arthropods for which there're loads.

And rattle off the taxa of the nematodes and trematodes.

I love the warmth of sphincters in the morning when the air is chill,

And for all those jars of faeces I can never, ever get my fill,

In fact when I consider all the years I've been collecting shit,

I can really, truly state that I can never get enough of it.

Oh, there's *Taenia, Davainea* and *Strongylus and Syngamus, Anisakis, Heterakis* and the genus *Prosthogonimus, Thelarzia, Bilharzia* and *Moniezia and Stilesia*, and I hope that sheep is friendly as I'm scared of rectal seizure.

I go to all the conferences that are away in foreign places,

I love to see my old mates and their slowly ageing faces,

We sit there in the lectures and nod off to droning voices,

And occasionally we wake to consider other choices.

We quickly scan the posters then push off to find the liquor,

The red wine is our favourite and as we age we drink less quicker,

In the past we were careless, drank far too fast and got the pukes,

But now our livers are so solid they stop hydatids, as well as flukes.

Oh, there's *Dicrocoelum, Dipylidium, Stephanurus* and *Bunostomum, Setaria and Filaria* and the little fluke *Clinostomum, Chabertia, Cooperia , Necator* and Hirudinea, and I'm aware that the rhymes are getting sillier and sillier.

I am the very model of a bibulous parasitologist, I sometimes wonder sadly if I should have been a gynaecologist,

But the thought of all that femininity would probably keep me awake at nights,

And I really think I prefer the genitalia of parasites. They're well-formed and microscopic with a variety of shape imbued,

And you can talk about them at conferences and still maintain your rectitude,

And when I reflect on research and how it shaped my life,

I see Parasitology's been a great mistress, but it could have never been a wife.

Oh, there's Culicidae, Muscidae, Oestridae and *Argas, Lucilia, Pollenia* and the ked called *Melophagus,* Siphonaptera, Phthiraptera, *Dermatobia* and *Dermanyssus,* and you'll be very glad to know that at last I've reached the finish.

Now after all that you can see how difficult it was for me to construct an after-dinner talk, nothing really concrete came to mind, or perhaps that is the problem and the mind has in fact set like concrete; who knows? Anyway I couldn't find anything coherent to talk about this year, so I've decided not to give an after-dinner talk after all. Perhaps I could have a try next year when I've had more time to think about a topic? Therefore I have decided not to take up any more of your time, and thank you for your patience.

Allen Heath October 2010