



# NEWSLETTER

Volume 28 No.1 January 2017



Geoffroy's cat (*Felis geoffroy*) taken at Iguazu falls in Argentina (Stephanie Thompson).





# NEWSLETTER

Volume 28 Issue No.1 January 2017

## IN THIS ISSUE

- 3 From the President's Desk
- 5 Researcher News
- 6 Network News
- 9 Name these ASP Fellows
- 10 Interview with  
Russell Stothard
- 13 New ASP Members
- 14 Parasites: Friends Without  
Benefits Part 1
- 16 ASP Member Survey 2016
- 20 ASP Strategic Plan 2010
- 24 International Journal  
for Parasitology
- 25 IJP:PAW
- 26 IJP:DDR
- 31 Jobs
- 33 Events
- State News
- ASP Council

## From the President's Desk

Dear Members,

**Firstly, and on behalf of the Executive and the Society, we wish you all a productive and exciting year for 2017.**

For those of you already back at the coalface, we trust that the Festive season was a pleasant time with friends, family and feasting! For those still enjoying a break, relax, your time for dieting still awaits! This report will highlight several important items featured in the newsletter; a more extensive report will be forthcoming for the MTM on 9th February.

This year commences quickly for the ASP Council with 3 concurrent meetings at Sydney University. On Feb 7, the **Veterinary Parasitology teaching and resources workshop** will address how to enhance the discipline. On Feb 8, the revision of the **ASP Strategic Plan** will be workshopped. For those interested, this is available on the ASP website and a precis is contained in the Newsletter along with the findings of the recent ASP Member Survey. This is all included so that members can be informed when the revised Plan is presented for endorsement at the AGM in Leura (below). The Executive, Council will be informed from both the 2016 AGM and the results of our recent member survey. On Feb 9, the **MTM** will occur. In this issue, we shall meet two new members from Tassie (page 13).

**On the Conference Scene**, the ASP 2017 conference at Leura is well advanced, with the program outline and accommodation/ events available on the website <http://parasite.org.au/2017conference/program/>. Please add to your plans for June 26-29, enlist your new students into the Society and plan your presentation(s). **We had a wonderful Christmas present from Mal Jones; the ICTMM has, at the very least, broken even!** Really special thanks from the whole ASP to the Management



Committee (Denise Doolan, Kathy Andrews, David Looke, James McCarthy and Paul Griffin) for all the prolonged effort and the previous vision for this undertaking. This newsletter also contains a **feature story from Professor Russell Stothard** from the Liverpool School of Tropical Medicine, ASP Invited International Lecturer in 2016 who also attended ICTMM.

Our ASP-sponsored exhibition, **"Parasites life undercover"** at the Queensland Museum, coupled with ASP's own **"Parasites, People, Art"** collaboration <http://parasite.org.au/outreach/gula-guri-mayin/> has been running the Queensland Museum. An amazing success, with over 150,000 visitors viewing the compilation! The exhibition continues until 27th January and I would encourage all ASP members to pay a visit.

The **"Concepts in parasitology" (CIP)** course was run again at Kialoa in November 2016 amongst the kangaroo plague and mozzies! A stimulating and exhaustive event with 16 participants this year. Our thanks once again, for the dedicated enthusiasm from Alex and the ASP management team to organise

*From the President's desk continued*

and conduct this wonderful event, and to our members who contribute to its ongoing success and notoriety! Photos will be presented! As part of all this, it was justly deserved that **Alex Maier has been awarded the Vice-Chancellor's Award for Public Policy and Outreach**. Congratulations Alex!

As indicated in the following pages, I commend your attention to the **outreach and network events and State events**. Thanks to each of our **State reps and Lisa and Nick** for the sheer continued dynamism in the spectrum and public engagement exhibited by these activities. Also listed are **journal highlights** and list of articles published by ASP members in IJP, IJPDDR and IJPPAW. In addition, each of our journals has new social media accounts for signing up and following.

And congratulations to all our **grant winners for 2017**.

Please read on- this is only the appetiser!

**David Emery on behalf of the Executive**

[www.parasite.org.au](http://www.parasite.org.au)  
[www.facebook.com/ASParasitology](https://www.facebook.com/ASParasitology)  
[www.twitter.com/AS\\_Para](https://www.twitter.com/AS_Para)



*Pediculus capitis* are parasitic lice that are often found in the hair of young school children and sometimes on adults and live, eat blood, sleep, and lay their eggs on our hair. They lay their eggs close to the scalp so the heat from the person's head will allow the egg to hatch in about a week. They live for just over a month. Image

of headlice courtesy of Cath Covacin, Stephen Barker and Rick Webb, The University of QLD (Australia) and has been modified for this post (the headlice doesn't really have comical eyes and a mouth and never wears a hat on it's rear!)

# Researcher News

## The ASP's Alex Maier has been awarded the Vice-Chancellor's Award for Public Policy and Outreach by the Australian National University.

Alex is the driving force behind an innovative outreach activity, the "Concepts in Parasitology" course, offered annually by the Australian Society for Parasitology since 2014. The course offers a fully immersive experience, where sixteen early career researchers from all over the world interact with leaders in the field to "live, think and breathe" parasites for two weeks. The course aims to promote a holistic view of

parasitology by bringing together experts from universities, industry and the public sector and integrating lab and field work at the Kioloa campus. It also highlights the very significant research in parasitology at the ANU.

As the inaugural convenor, Alex has worked tirelessly to ensure that the course is successful: he conceived the course concept, has put the course infrastructure in place, and now coordinates the course delivery and contributes to the teaching of the course. The course not only disseminates comprehensive discipline knowledge, offers professional skills

training and the opportunity to establish a network amongst parasitologists, but also serves as a catalyst for new research, teaching and outreach initiatives.

### Story courtesy of ANU

<http://biology.anu.edu.au/about-us/awards/vice-chancellors-award-public-policy-and-outreach>

**Below: Alex Maier and participants at Kioloa during the inaugural Concepts in Parasitology course in 2014.**



# News from the ASP Network for Parasitology

## Welcome

### Conference News

We are gearing up to this year's ASP Annual conference, which will take place at the Fairmont Resort in Leura in the Blue Mountains from June 26-29, 2017, starting with a welcome reception in the Ballroom of The Carrington Hotel in Katoomba. Registration and abstract submission will open shortly so please visit the conference website ([www.parasite.org.au/2017conference](http://www.parasite.org.au/2017conference)) for all the latest conference news.

We have a great line-up of national and international speakers already confirmed for various exciting themes covering, as always, the full spectrum of parasitological research, including:

#### *Plenary Lectures – Parasitology: An Industry Perspective*

- **Norbert Mencke** (Bayer Animal Health, Germany)
- **Vern Bowles** (Hatchtech, Australia)
- **Aleta Knowles** (Virbac, Australia)

#### *ASP Invited International Lecturers*

- **Carol Sibley** (University of Washington, USA)
- **L. David Sibley** (Washington University in St Louis, USA)

#### *Elsevier Parasitology Lecture Series*

- IJP Lecturer: **Jacqueline Matthews** (Moredun Research Institute, UK)
- IJP: Drugs & Drug Resistance Lecturer: **Ron Kaminsky** (Drug Discovery and Parasitology, Germany)

#### *Symposium Lectures*

- Toxoplasmosis: **Giel van Dooren** (The Australian National University, Australia)
- Malaria Control: **Tom Burkot** (James Cook University, Australia)
- Diagnostics: **Graham Robertson** (Concord Repatriation General Hospital, Australia); **Harsha Sheorey** (St Vincent's Hospital, Melbourne,

Australia); **Andreas Latz** (Novatec Immunodiagnostica, Germany)

- Companion Animals: **Christian Epe** (Merial, USA)
- Aquaculture: **Barry Hosking** (Elanco Animal Health, Australia)
- Wildlife: **Andrew Thompson** (Murdoch University, Australia)
- Drugs and Drug Resistance: **Kevin Saliba** (The Australian National University, Australia); **Andrew Kotze** (CSIRO, Australia)
- Livestock: **Ala Lew-Tabor** (The University of Queensland, Australia)

#### **The 2017 Early Career Researcher Event**

has the theme "Careers with Industry" and takes place on Wednesday June 28, 2017 from 630pm at the The Old City Bank Brasserie, Katoomba.

Special conference rates for accommodation have been negotiated with both the **Fairmont Resort in Leura** (the main conference venue) and The **Carrington Hotel in Katoomba** (with some rooms that are perfect for students) and there will be a bus to transport delegates between Katoomba and Leura during the conference. We have organized one coach trip on June 26th to collect delegates from Sydney Airport, stopping at Sydney Central Station and on to the conference venues in the Blue Mountains and a return coach trip home on the morning of 30th June 2017. The Blue Mountains is also accessible by road, train or bus.

The success of our conference is, as always, dependant on our supporters and we would like to thank sincerely the following organisations for their generous support; **Elsevier Parasitology**, the **International Journal for Parasitology (IJP)** and **Virbac**.

Please contact the Conference Coordinator, Lisa Jones by email [lisa.jones1@jcu.edu.au](mailto:lisa.jones1@jcu.edu.au) or telephone +61 (0)7 4232 1311 with any queries.

### Network Researcher Exchange and Travel Awards

Applications for the next Network Researcher Exchange and Travel Awards round close on 31 March 2017 check the ASP website for guidelines and the application form.

[www.parasite.org.au/awards/jd-smyth-postgraduate-travel-awards/](http://www.parasite.org.au/awards/jd-smyth-postgraduate-travel-awards/)

### ASP Outreach – hosts wanted for Gula Guri mayin

Would you like to be the next host of our amazing science-art painting "Gula Guri mayin" by Bernard Singleton? ([www.parasite.org.au/outreach/gula-guri-mayin](http://www.parasite.org.au/outreach/gula-guri-mayin)). This art piece is currently on display, along with *Parasites: Life Undercover* at the Queensland Museum. We will be looking for new homes to host this beautiful piece of parasite art for periods of time greater than a month. Please contact [lisa.jones1@jcu.edu.au](mailto:lisa.jones1@jcu.edu.au) if you have ideas for a suitable venue or would like further details.

**Parasites: Life Undercover** is still on display at the Queensland Museum until 27 January 2017. Entry is free, so please take your family and friends to see this awesome exhibition before it heads back to Berlin!

### Research Grant Success

Recent funding announcements from the NHMRC included over \$13 million across 16 project grants and one fellowship to Australian parasitology researchers. We congratulate sincerely the following:

### Career Development Fellowship

Aaron Jex, The Walter and Eliza Hall Institute of Medical Research, R.D. Wright Biomedical Fellowship, *Systems biology of neglected parasites*

### NHMRC Project Grants

Alan Cowman (The Walter and Eliza Hall

Institute of Medical Research), Justin Boddey (The Walter and Eliza Hall Institute of Medical Research), Wilson Wong (The Walter and Eliza Hall Institute of Medical Research), Anthony Hodder (The Walter and Eliza Hall Institute of Medical Research), *Effector export in *P. falciparum* infected human erythrocytes*

Andrew Steer (Murdoch Childrens Research Institute), Margot Whitfeld (St Vincents and Mater Health Sydney), Tibor Schuster (Murdoch Childrens Research Institute), Titus Nasi (National Referral Hospital, Honiara), Oliver Sokana (Ministry of Health and Medical Services Solomon Islands), Ross Andrews (Menzies School of Health Research), Lucia Romani (The Kirby Institute for infection and immunity in society), Michael Marks (London School of Hygiene and Tropical Medicine), Daniel Engelman (University of Melbourne - Centre for International Child Health), *Cluster randomised trial comparing one versus two doses of ivermectin for mass drug administration to control scabies*

Andrew Steer (Murdoch Childrens Research Institute), Margot Whitfeld (St Vincents and Mater Health Sydney), Handan Wand (University of New South Wales), Mike Kama (Fiji Centre for Communicable Disease Control, Mataika House, Suva, Fiji), Joseph Kado (Fiji Ministry of Health), Ross Andrews (Menzies School of Health Research), Lucia Romani (The Kirby Institute for infection and immunity in society), Doctor Natalie Carvalho (University of Melbourne), *Does mass drug administration for scabies result in control of serious bacterial complications? A proof of concept towards global elimination*

Asha Bowen (Telethon Kids Institute, Subiaco WA), Jonathan Carapetis (Telethon Kids Institute, Subiaco WA), Steven Tong (Menzies School of Health Research), Julianne Coffin (The University of Notre Dame Australia), Andrew Steer (Murdoch Childrens Research Institute), Roz Walker (University of Western Australia), Julie Marsh (Telethon

Kids Institute, Subiaco WA), Raymond Christophers, *Skin disease control in remote Aboriginal children: translating evidence into practice with a cluster randomised, stepped wedge trial*

Brendan Crabb (Burnet Institute), Travis Beddoe (La Trobe University), Tania de Koning-Ward (Deakin University), Paul Gilson (Burnet Institute), *Functional resolution of PTEX, the exporter of virulence factors in malaria parasites*

Christopher MacRaild (Monash University), Raymond Norton (Monash University), Jonathan Richards (Burnet Institute), *Enhancing the immune response to disordered malaria antigens*

Laurens Manning (University of Western Australia), Timothy Davis (University of Western Australia), Brioni Moore (University of Western Australia), Moses Laman (Papua New Guinea Institute of Medical Research, Goroka, Papua New Guinea), Kevin Batty (Curtin University of Technology), Sam Salman (University of Western Australia), Leanne Robinson (The Walter and Eliza Hall Institute of Medical Research), *Enhancing clinical management of paediatric malaria in endemic areas with transmission of multiple Plasmodium species*

Malcolm Jones (The University of Queensland), *A new animal model for genitourinary schistosomiasis*

Malcolm McConville (University of Melbourne), Christopher Tonkin (The Walter and Eliza Hall Institute of Medical Research), Vernon Carruthers (University of Michigan Health System), *Targeting acute and chronic toxoplasmosis*

Michael Duffy (University of Melbourne), Tania de Koning-Ward (Deakin University), Stefan Knapp (Goethe University Frankfurt), *The role of novel and essential bromodomain proteins in coordinating malaria parasite gene regulation and their potential as anti-malarial targets*

Michelle Boyle (Burnet Institute), *T-follicular helper cell subsets that induce protective anti-Plasmodium falciparum antibodies*

Nicholas Smith (Western Sydney University), Adrian Hehl (University of Zurich), Peter Deplazes (University of Zurich), *A transmission-blocking vaccine to prevent toxoplasmosis*

Rowena Martin (Australian National University), Adele Lehane (Australian National University), *Determining the mechanistic basis of the patterns of inverse drug susceptibility induced by two key drug resistance proteins of the malaria parasite*

Scott Mueller (University of Melbourne), *Immune surveillance of the CNS during malaria infection*

Stephan Karl (The Walter and Eliza Hall Institute of Medical Research), Istvan Kezsmarki (Budapest University of Technology and Economics), Moses Laman (Papua New Guinea Institute of Medical Research, Goroka, Papua New Guinea), Malcolm Jones (The University of Queensland), Peter Metaxas (University of Western Australia), *Field-based evaluation of a novel magneto-optical technique to diagnose malaria*

Timothy Davis (University of Western Australia), Brioni Moore (University of Western Australia), Moses Laman (Papua New Guinea Institute of Medical Research, Goroka, Papua New Guinea), Kevin Batty (Curtin University of Technology), Laurens Manning (University of Western Australia), Sam Salman (University of Western Australia), *A study of artemisinin combination therapy given at delivery to prevent postpartum malaria and to young infants to treat uncomplicated malaria*

**Cheers,  
Nick and Lisa**



# ASP

## BLUE MOUNTAINS

# 2017

### JUNE 26TH - 29TH 2017

### THE FAIRMONT RESORT, LEURA, NSW

**Registration and  
abstract submission  
open shortly.**

Please visit the conference website for all the latest conference news.

[www.parasite.org.au/2017conference](http://www.parasite.org.au/2017conference)

Please contact the Conference Coordinator, Lisa Jones by email ([lisa.jones1@jcu.edu.au](mailto:lisa.jones1@jcu.edu.au)) or telephone +61 (0)7 4232 1311 with any queries.

**Confirmed speakers include**

Norbert Mencke,  
Vern Bowles,  
Aleta Knowles,  
Carol Sibley,  
L. David Sibley,  
Jacqueline Matthews,  
Ron Kaminsky,  
Giel van Dooren,  
Tom Burkot,  
Graham Robertson,  
Harsha Sheorey,  
Andreas Latz,  
Christian Epe,  
Barry Hosking,  
Andrew Thompson,  
Kevin Saliba,  
Andrew Kotze,  
Ala Lew-Tabor



# IJP

INTERNATIONAL JOURNAL FOR PARASIT

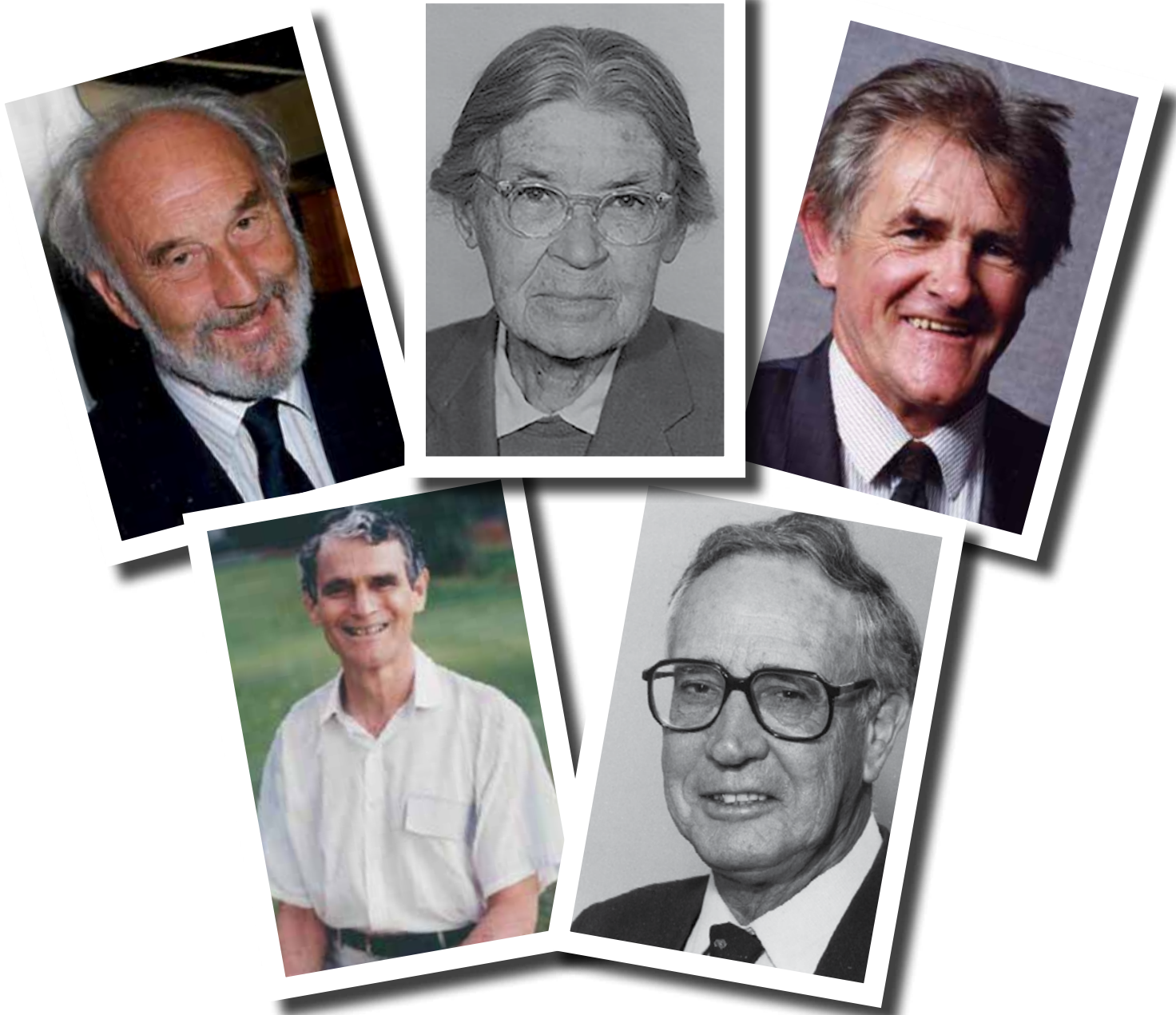


# Can you name these Fellows of the Society?

Senior members of the ASP will recognize the faces below immediately - all are luminaries of the Society's early years. Younger members may be less familiar with them.

As we refresh our website for 2017, we are starting to add more detail to our "Fellows of the Society" pages. As they grow over the coming months, these pages should form a fascinating biographical archive of some of the leading Australian Parasitologists of the last fifty years.

If you have any suggestions for the improvement of these pages, please write to Lisa Jones at [lisa.jones1@jcu.edu.au](mailto:lisa.jones1@jcu.edu.au)



To put names to faces and to read a brief biography of each Fellow, visit [parasite.org.au/the-society/fellows-of-the-society/](http://parasite.org.au/the-society/fellows-of-the-society/)

The answers can also be found at the bottom of page 28 of this newsletter

# An interview with Russell Stothard

Professor Russell Stothard from the Liverpool School of Tropical Medicine was an ASP Invited International Lecturer in 2016. Lisa Jones spoke with him at ICTMM and spoke to him about his work.

Professor Russell Stothard from the Liverpool School of Tropical Medicine was an ASP Invited International Lecturer in 2016.

In addition to presenting at the 2016 ASP Conference at ICTMM in Brisbane, Russell visited Robin Gasser's laboratory at the University of Melbourne and Don McManus' laboratory at QIMR Berghofer MRI. This was his first visit to Australia but he has corresponded with several Australian colleagues throughout his career. Russ has always admired the ASP, for example, one of his earlier papers was published in the *International Journal for Parasitology* on *Trypanosoma cruzi* and most recently this year on female genital schistosomiasis. Until last Easter, Russ was Honorary General Secretary of the British Society for Parasitology (BSP), the members of which have diverse interests from medical

to molecular etc., and he was keen to see how ASP compared to the BSP.

*"Scratch the surface of a human parasitologist and you'll find a fish parasitologist waiting to get out."*

At the ICTMM, I caught up with him and asked why he chose to present on COUNTDOWN and Leiper's lasting legacy in helminthology (see <http://blog.journals.cambridge.org/2016/09/05/robert-t-leipers-lasting-legacy-on-schistosomiasis/>). "Scratch

the surface of a human parasitologist and you'll find a fish parasitologist waiting to get out" was Russell's introduction to why he chose this topic. It is actually just over 100 years ago that the lifecycle of the African schistosome was described by R.T. Leiper and it's important to remember its today. This is framed within a countdown on WHO 2020 targets for neglected tropical diseases, with COUNTDOWN an acronym of the DFID, UK programme he directs (see [www.countdownonntds.org](http://www.countdownonntds.org)).

Despite control, schistosomiasis is a major scourge to the health of children throughout Africa and there is urgent need to scale-up preventive chemotherapy. Although Leiper was a clinician, from the London School of Tropical Medicine and Hygiene, his passion was in solving conundrums, parasite lifecycles and having worked on other worms, those of fish, his acumen and insight was very well honed.

Russ's tongue-in-cheek remark is also a friendly pinch at clinical colleagues in the BSP who had been dismissive of those with interests in wildlife, which ultimately led to a split of malariologists from the Spring Meetings, a dichotomy that began in the late 1980s. Russ remarked that it has taken a long time to get these factions working together again, united mainly by the rise in molecular epidemiology with shared laboratory tools and computer approaches that simply didn't exist a decade before.

Like Leiper, Russ is firmly interested in OneHealth and being brought up on a farm in the rural borders of England and Scotland he was interested in parasites well before becoming a researcher. He developed a fascination of diseases in livestock, their ecology and also became a keen angler catching anything that could swim, or finding things within things that swam! Russell studied Microbiology and Zoology at Leeds, and after an expedition to East Africa became interested in molluscs and their snail-borne diseases.

In 1989 he took part in marine surveys, piloting small boats across the coral reefs of Mafia Island, Tanzania. Some 25 years



## Russell Stothard continued



later, he was pretty proud to solve that urogenital schistosomiasis on the island was actually an imported infection and not naturally endemic see <http://www.sciencedirect.com/science/article/pii/S0001706X12003117>.

Russ completed his PhD in 1995 at the Natural History Museum, London which is also WHO Reference Centre for schistosomiasis. His studies were undertaken mainly on Zanzibar where he was able to show that urogenital schistosomiasis has a clearly demarked endemic and non-endemic zone on the island. Taking advantage of his transmission maps, there have been major efforts to eliminate the disease there spearhead by ZEST: Zanzibar Elimination of Schistosomiasis Transmission (see <http://score.uga.edu/projects/elimination-of-schistosomiasis/>).

Russ therefore feels a close affinity with Leiper in that he was also looking for clues to find out about the disease in order to work out an intervention. To see the bigger picture of this disease Russ used a combination of molecular genetics (for snail identification) and spatial epidemiology (for GPS mapping) as well as having an understanding of the ecology of the

parasites in people (water contact behavior) to look at the whole lifecycle and how all of the components fitted together on the island.

In 2002 Russell was employed to work as a field coordinator with Alan Fenwick on a Bill & Melinda Gates funded Schistosomiasis Control Initiative, primarily concerned with distributing praziquantel medications to children. He was in charge of developing the field programme to measure indicators of how this treatment was changing the morbidity of the disease. As a result, National Control Programmes were created in Tanzania, Uganda, Zambia, Niger, Mali and Burkina Faso. From that point on Russell was interested in public health interventions and the health system in Africa, and made many trips to each country. Having visited Uganda (like Leiper) many times Russ saw the important treatment gap in young children (preschool-aged) that needed solving with targeted epidemiological research. This led to SIMI: schistosomiasis in mothers and infants project as funded by the Wellcome Trust.

*"Any young child deserves to be healthy whatever the disease doesn't (s)he?"*

The SIMI project was also in collaboration with an Australian colleague Colin Sutherland, based at the London School of Hygiene and Tropical Medicine. Working with Colin, the SIMI project revealed many new dimensions in the co-epidemiology of schistosomiasis and malaria co-infection in young children. The SIMI team helped to pioneer how treatment could be delivered in future assessing horizontal and vertical delivery of public health services.

This helped to break down siloes not only in the diseases but also in the

infrastructures that arise around them for their control. Russ mentioned "Any young child deserves to be healthy whatever the disease doesn't (s)he?".

Looking to the future and sustainable development goals, control of NTDs are framed within it. Thus control methods have to expand their thinking beyond medicine and think of how agriculture, water and socio-economic development are all interconnected. This is part of the ethos of COUNTDOWN, to develop multidisciplinary teams conducting transdisciplinary research. Directing this team Russ remarked he was fortunate to employ several talented staff.

ASP member and recent PhD graduate from ANU, Suzy Campbell, joined the project at the Liverpool School of Tropical Medicine as an epidemiologist to review the control strategy for schistosomiasis and STH, a change from the cross-sectoral approach. Addressing the epidemiology of these diseases the team believe that it might not be "neglected populations" but rather the inequality of treatment causing issues with the delivery of treatments. To make a difference to these vulnerable communities they will provide opportunities for communities to access alternative interventions against these disease and explore new treatment strategies.

Both Suzy and Russ know just how important this research is and the feasibility of changing strategies to treat schistosomiasis and STHs in Ghana and Cameroon is filled with challenges: cost efficiency and bottlenecks mean that this research is not just a straightforward biological investigation. Implementing the research needs to be built into the health systems so that an integrated program of research combining epidemiology, parasitology and social science takes place. This integrated view will make a difference to people.

*Russell Stothard continued*

Suzy Cambell's images from Timor Leste



# New members of then ASP

We welcome two new members to the ASP in Tasmania, **Iain Koolhof** and **Scott Carver**.



## **Iain Koolhof**

Iain has worked on vector-borne diseases and their epidemiology surrounding human outbreaks and epidemics. Iain has a particular interest in the Ross River virus and understanding its transmission dynamics and the role public understanding has in disease prevention. As part of his work, collaboration has been made with councils in Western Australia. This has involved modelling Ross River virus over the past 23 years to produce early warning detection systems for disease outbreaks and their relative severity. Iain is currently a Masters of Public Health student at the University of Tasmania focusing on

epidemiology. He has been working in his field for three years, beginning with research into host contributions to Ross River virus transmission in epidemic centers around Australia. This has then developed into modelling environmental and host drivers of Ross River transmission. A long with understand the transmission of the Ross River virus, Iain has investigated gaps in knowledge in public awareness around mosquito-borne diseases and how to improve perceptions towards mosquito mitigation activities.



## **Scott Carver writes:**

I am a lecturer in wildlife ecology in the School of Biological Sciences at the University of Tasmania. My research focusses on the ecology and epidemiology of infectious diseases, spanning wildlife, domestic animal and human health. I am particularly interested in the transmission, pathology and emergence of infectious diseases, and pursue these interests using a combination of field studies, experiments and mathematical modelling. This, often involves collaborating with investigators in other disciplines, such as genetics, immunology, mathematics and veterinary research. More specifically, my research focusses on some key systems, including: sarcoptic mange in wombats, pathogen transmission in puma and bobcats, Ross River virus, and chlamydial infections of koala and agricultural animals.

I am originally from New Zealand, where I undertook a degree and Masters at Victoria University of Wellington working on amphibian chytridiomycosis. I then completed a PhD at the University of Western Australia on mosquito-borne disease ecology, followed by two two-year postdoctoral fellowships in the USA. For these, I firstly worked on small mammal

ecology and hantavirus transmission at the Montana Tech of the University of Montana, and then on exposure and transmission of a suite of pathogens among puma, bobcats and domestic cats at Colorado State University. From there I was fortunate to land my current academic position at the University of Tasmania, which I commenced in 2012.

## **Research in the news:**

Combating mange in wombats  
<http://www.bbc.com/news/world-australia-33549928>

National Science Foundation grant funded  
[http://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1413925](http://www.nsf.gov/awardsearch/showAward?AWD_ID=1413925)

# Parasites: Friends Without Benefits (Part 1)

The following is a rough transcript of a talk by Peter O'Donoghue (POD) at a parasitology outreach event, Science in the Pub. Peter points out that this was a social interactive occasion not a bonafide scientific discourse

- so many liberties were therefore taken with content and language in the pursuit of entertainment, somewhat in the vein of Mark Twain's famous quip "Get your facts first, then distort them as you please!"

Opening refrain: "Nobody loves me, everybody hates me, I think I'll go and eat some worms,

big worms, round worms, fat worms, skinny worms, worms that squiggle and squirm,

bite their heads off, suck their guts out, throw their skins away,

nobody loves me, everybody hates me, I think I'll eat worms today"

Guess what the topic of today's talk is? Yes, worms – or more accurately, PARASITES! It is fortuitous having this meeting in a pub. A very old joke epitomizes the association. In the 40's, a temperance worker tried to show the audience the evils of demon drink by placing an earthworm in a glass of water (where it wriggled happily) and then in a glass of whisky (where it died). She asked "What does this show you?" A drunken voice from the back row shouted out "That

drinking whisky will cure your worms!" So, ladies and gentlemen, I propose a toast "To the anthelmintic properties of alcohol!"

So, what is PARASITOLOGY? Over the years, I have received some very weird letters addressed to:

- Department of Para-cytology (I don't study pap smears);
- Department of Para-psychology (I don't study poltergeists or evil spirits);
- Department of Para-shitology (close enough – they got the medium right) if we drop the 'H', we get
- Department of Parasitology (the study of parasites – nasty critters living at the expense of others)

The term 'parasite' is well known in society as a colloquialism for "bludger", 'leech' or 'sycophant' and is often used to describe

politicians, bureaucrats, spouses, children, etc. In biology, parasitism turns out to be the most common way of life! Nearly every aquatic or terrestrial organism has a parasite or two. Parasites rule! Let's examine some core concepts or basic ideas central to parasitology.

## 1

### Parasites are friends without benefits!

All parasites use a host for all or some of their life-cycle, and by definition, cause harm to their hosts. Many other organisms also live in association with hosts. The broad term for organisms that live in association with hosts is symbiosis.



## Parasites: Friends Without Benefits continued

Symbiotes include:

- mutualists, which benefit their hosts (e.g. rumen protozoa contributing to fermentative digestion in herbivores);
- commensals, which give no benefit but cause no harm (e.g. various lumen-dwelling organisms live in the intestines of vertebrates but have not been associated with any pathology); and
- parasites, which cause harm to their hosts (e.g. helminth and protozoan endoparasites and arthropod ectoparasites causing host pathology).

Parasitologists themselves are quirky creatures – they work on strange critters which cause nasty diseases. They are quick to sensationalize their craft – often showing the most horrendous gory images of people and animals suffering the devastations and deprivations of parasites (deformities, lesions, death). Lucky we do not have PowerPoint today!

In reality, we have to qualify what we mean by harm – is the damage caused severe enough for the host to notice it as disease? All parasites cause structural and functional losses to the host by destroying cells. If the infection is light and only a few cells are lost, the host may not even notice. If the infection is heavy and many cells are lost, the host does notice something is wrong as clinical signs become apparent. Epidemiologically, those afflicted with clinical disease often represent the tip of the infection-iceberg, involving the few individuals with heavy severe infections that get very ill and present to a clinician (doctor or veterinarian). Many others may be infected but do not exhibit clinical signs – they represent the subclinical or asymptomatic majority. They cannot be ignored in control programs, because even though they are not sick, they are still carriers or reservoirs of infection. This brings us to the second concept.

# 2

## The pathology of parasitism is cumulative!

The severity of disease is often correlated to the intensity of infection – the more parasites you have, the more damage they do, and the worse the disease. We recognize two main types of parasitic diseases; those caused by microparasites and those by macroparasites.

- Micro-parasites are small single-celled organisms, like protozoa, but even including bacteria and viruses. These organisms have fast life-cycles and huge multiplicative potential – they multiply rapidly in host tissues and cause acute transient diseases that may become severe and life-threatening.
- Macro-parasites are larger multicellular organisms, like worms and arthropods. They have slower longer developmental cycles. They are not multiplicative, but cumulative in the host (eat one worm egg, get one worm; eat 50 worms eggs, get 50 worms). They cause chronic persistent diseases that worsen with time.

# 3

## Parasites exhibit tissue tropism!

All parasites have specific requirements for survival, growth and reproduction. They

show strong predilections or preferences for specific host tissues, which in turn determines the types of disease that are caused. There are essentially three main sites of infection:

- gastro-intestinal tract (i.e. mouth to bum tube) – we shove food into one end and waste products come out the other. Infections cause gi disturbances, manifest by regurgitation (upchuck or vomiting) or diarrhoea (the squirts).
- circulatory system (i.e. arteries, capillaries, veins) – blood streams around the body delivering oxygen and glucose and removing carbon dioxide and metabolites. Blood parasites compromise these functions by destroying blood cells (anaemia) or blocking blood vessels (ischaemia).
- solid organs as well as tissue systems (e.g. heart, lungs, liver, brain, muscles, etc.) – parasites may migrate through, or lodge in, host tissues causing lesions and malfunction.

A crucial indicator of tissue infection is that of inflammation. Ancient Greek physicians recognized the cardinal signs of inflammation as rubor (redness), calor (heat), tumor (swelling) and dolor (pain); all caused by increased blood flow to affected tissues in an innate immune attempt to deliver bountiful phagocytes (mainly neutrophils) to the site of infection. Inflammation is indicated by the ‘-itis’ postfix to the organ name (e.g. hepat-itis for inflammation of liver, encephal-itis in brain, card-itis in heart, etc). This brings us to a conundrum. How do infections get from one host to another in order to complete their life-cycles and perpetuate their existence?

**To be continued...**

**Previous page: *Profs, Pints and Parasites. Friends Without Benefits* was held on Tuesday 27th August 2013, at the Aviary Rooftop Bar in Perth. This inspiring and energetic event was hosted by Renae Sayers (left) from Scitech and featured Peter O'Donoghue (right) of The University of Queensland and Stephanie Godfrey (centre) of Murdoch University.**

# ASP Member Survey 2016

In 2016 the ASP surveyed members to find out what they thought about governance, leadership and operations of the Australian Society for Parasitology to help plan for the future.

This study will ultimately be for the benefit of the members of the ASP because it will help the Society plan for the future, ensuring we solicit all of the amazing ideas of members so we have the best possible set of operating procedures to meet the Society's future goals. The de-identified data from the study will be considered by the ASP Executive and Council as they consider the next stage of the ASP Strategic Plan and a brief summary of the results of the study is outlined below.

The full report can be downloaded from the members resources section of the ASP WildApricot Membership Website, see "Appendix 3 for 2016 ASP ETM & AGM draft minutes..."

<http://asp.wildapricot.org/memberresources>

## Help plan for the future

If you have any comments, feedback, ideas or thoughts that you would like to be discussed as part of the ASP Strategic Plan Review Meeting in February 2017, please contact your ASP state representative who will be at the meeting representing your views.

<http://parasite.org.au/the-society/state-representatives/>

## Investigating models of governance and operation for the Australian Society for Parasitology in a changing economic and social environment.

Good corporate governance is essential for the smooth and efficient financial and operational running of an organisation and to protect the rights of its leaders. This study analysed the governance and operations of the Australian Society for Parasitology (ASP) within the context of a changing social and economic environment. 156 participants were surveyed for their opinion about the governance and operations of the ASP and 20 members of the ASP leadership team participated in telephone interviews to identify the current governance and operational systems of the ASP. All participants were asked to consider how the ASP might operate in the future.

The research questions were:

1. What should the Constitution of the Australian Society for Parasitology look like?
2. What is the best governance model for the Australian Society for Parasitology

within the framework of the mission, vision and values identified in Constitution?

3. What are the possibilities for the Australian Society for Parasitology in the future?

External factors have affected the macro environment of the ASP, with effects on science research funding and job opportunities for scientists in Australia. These forces for change have made the ASP consider how they might need to adapt in the future.

The aim of this research was to determine the best model for governance and operation of the ASP to enable the Society to continue to grow and develop within the constraints of a changing economic and social environment.

## ASP Operations

The Operations of the ASP (Figure 1) can be analysed as a transformation process where inputs of material, management, labour and capital are identified, they go through a transformation process and are

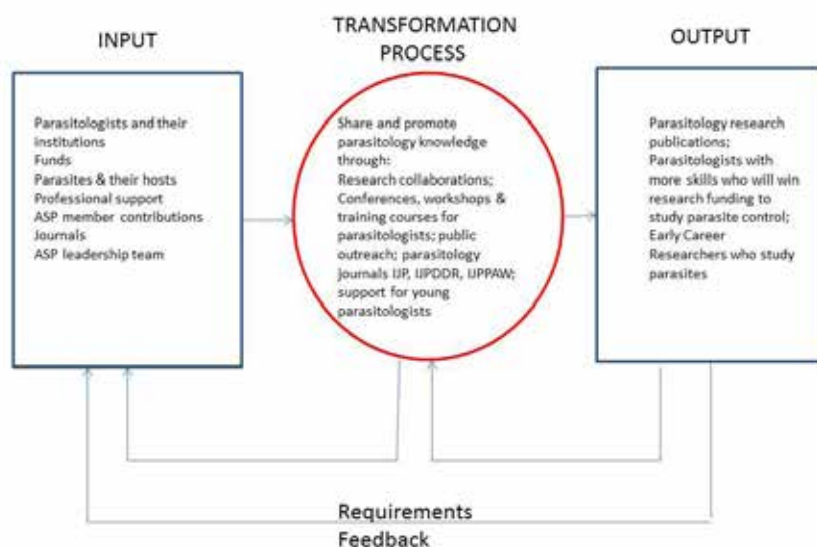


Fig 1 ASP Operations

## ASP Member Survey 2016 continued

turned into outputs, goods and services. ASP Operations analysis showed that the ASP administered and funded grants, professional development courses and networking opportunities for its members, it has frequently and regularly organised large, international conferences, and supported numerous public education and engagement initiatives financially and through in-kind contributions.

### Summary of key findings

Survey participants (n=139) represented both male and female ASP members equally, reflecting the ratio of males to females in the whole of the ASP. In contrast, the gender ratio for interview participants (n=20), representing the ASP leadership team, had more males, (75%), than females, (25%), reflecting the current gender ratio of the ASP leadership team. ASP members from a good spread of institutions and locations participated in the survey.

95% of participants agreed or strongly agreed with the ASP Object as stated in the ASP Constitution (2014): "The Society fosters association of persons interested

in parasitology, fosters establishment and proper curation of collections of Australian parasites, and, by facilitating intercourse and discussion, promotes investigation and advances knowledge of parasitology". Some commented that there were aspects missing including "outreach", "international" and "student support", and a few noted with surprise the inclusion of "curation of collections".

Participants thought that using a "voting-based method of decision making where the group agrees to a portion of votes and the majority of votes wins" was used most frequently when the ASP leadership team were making decisions.

The ASP relished in giving opportunities for future generations of parasitologists, they were passionate about the discipline and ensuring the vibrancy and future of the Society. It was important to identify what motivated participants to be an active ASP member to make sure that that motivation continued in the future.

Institutional "support" (or the lack thereof) for ASP activities was clearly an area that many participants felt strongly about;

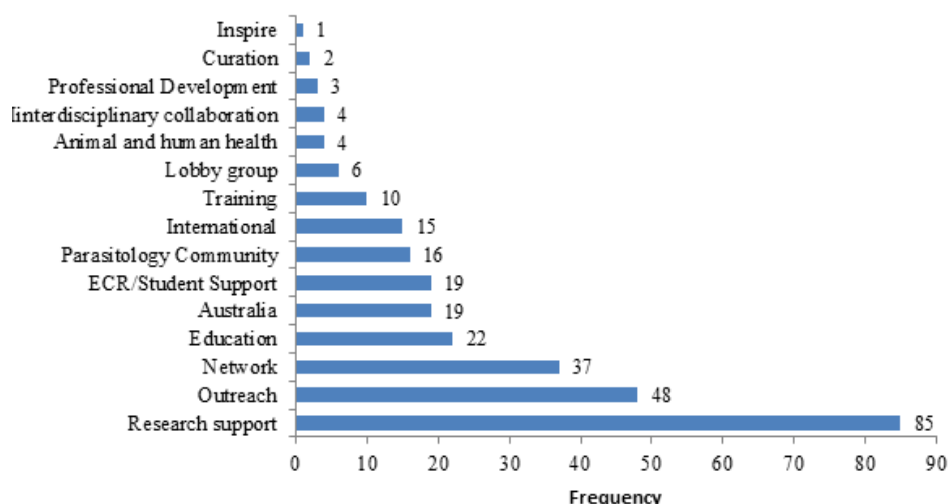
however how to address that issue was not clear cut. Institutional support is necessary to keep people in the discipline of parasitology. Some felt that the ASP needed to act as a lobby group and this could include lobbying within their own institution. Implicit in many comments was the thought that the status of the ASP as an independent and objective voice is one of the society's strengths that the ASP should not align with any one institution.

Considering the future of the ASP and how to ensure that the transformation process happens efficiently so that the outputs are more valuable than the inputs was asked through several questions around threats to the ongoing stability of the science workforce. In terms of what happens during the transformation process "mapping the tasks and understanding the best way to do those based on a streamlined and modernized structure" is essential. The future threats highlighted a combination of external factors that the ASP have little influence over and internal factors that they have full control over and the AGM is the ideal forum to have a discussion and form a working group to feed into the strategic planning process.

Blue sky thinking around future income sources for the ASP revealed that participants were not convinced this was necessary or ideologically right because it doesn't sit well with the culture and values of the Society. However, this might not apply to concepts like "crowd-funding", "sponsorship", "endowments" and "philanthropy" and are ideas worth pursuing as part of the future planning for the ASP along with the concept of "clever spending". The organisational culture of the ASP was revealed as a culture that enabled members to take risks, be fully engaged if they desired, and a culture that has resulted in some highly creative organisational outputs which has helped to make the ASP a rich and vibrant society.

### ASP Constitution

Survey participants gave eloquent interpretations of their version of the ASP



**Figure 2. Survey participant response to "What do you think the ASP mission and vision is?", themed, n=136**

## ASP Member Survey 2016 continued

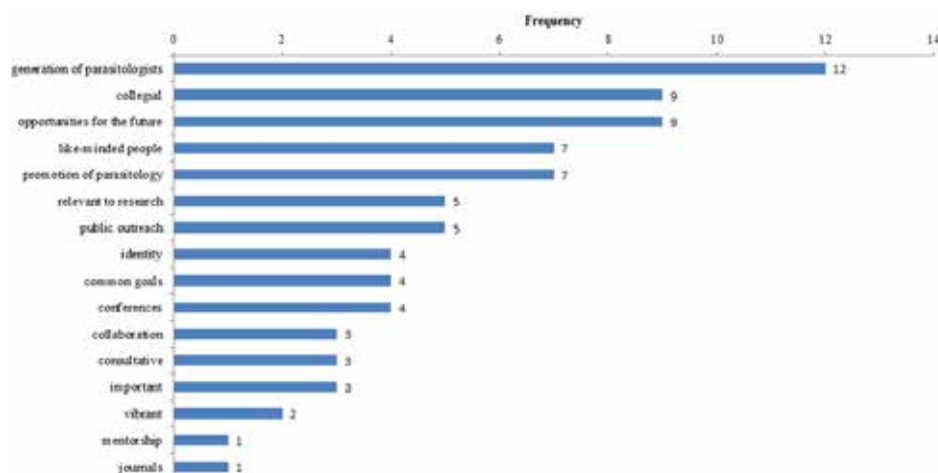
mission and vision, two are highlighted here and all have been coded into 15 themes (Figure 2).

- "To promote, champion and advance the field of parasitology on a global scale"
- "To promote the teaching and research of parasitology in Australia and worldwide. Support and promotion of young researchers and excellence in research. Education of, and communication to, the public about parasitology. Collection, curation and documentation of parasites for which there is little information. Promotion and fostering of international collaboration."

The top ranked themes were "Research support", "Outreach" and "Network".

Survey and interview participants when asked to identify their motivation to be an active ASP member were united in "Early Career Researcher support" and a "collegial parasitology community" as main themes (Figure 3 & 4). They gave the following comments:

- "Maintain contact with likeminded colleagues; maintain knowledge in



**Fig 4. Interview participant "Motivation to be an active ASP member", themed, n=20**

parasitology; support early career researchers and students"

- "Love of parasitology, desire to be part of the parasitology community, and want to support other members."
- "I am less active since retirement, but I love the organization, its spirit and its members"
- "It is the only society that solely focuses on parasites and is one of the society's that is most relevant to my

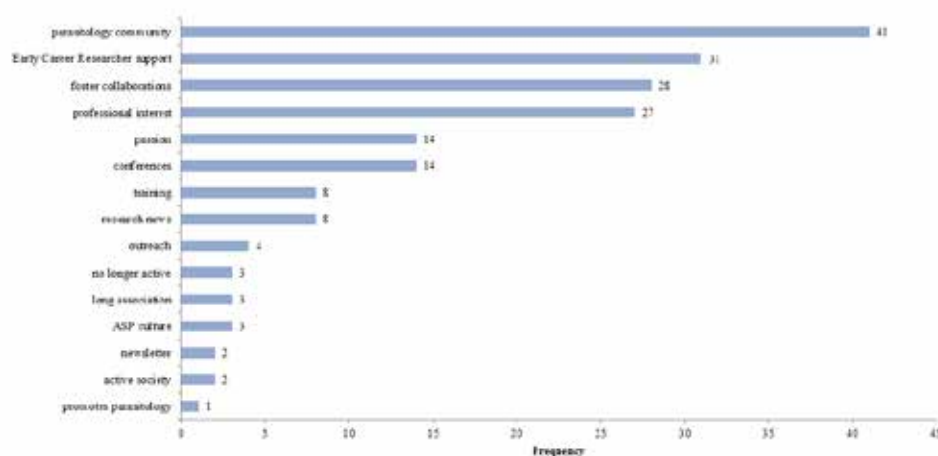
research."

- "The collegiality and the opportunities the society creates for the next generations of parasitologists."
- "The ASP promotes the science and training and mentoring students, we need to do this well if we want parasitology to thrive."
- "Passionate about the discipline at large, thoroughly enjoy everything the ASP offers particularly the meetings,"

### Leadership

When asked about the best decision they were involved in and why Interview participants talked about the "financial support of initiatives", "support for the CIP course" and described being part of "democratic decision making processes that made them feel good". A majority of Interview participants felt the decision making process that the ASP Council and Executive used enabled their views to be heard and accepted that a "majority vote" rules, also outlined in the ASP Constitution (2014).

- "... there have been hard moments in the past surrounding financial issues, but other than that the future



**Figure 3. Survey participant "Motivation to be an active ASP member", categorised into 15 themes, n=102**

## ASP Member Survey 2016 continued

decisions have been most important and satisfying.."

- "...opportunities for the next generations of parasitologists that it ensured the vibrancy and future of the Society."

### Income sources

Survey and Interview participants were asked to do some "blue sky" thinking around potential future income sources for the ASP. Survey participants (Figure 5) were not sure it was necessary (18%) but several thought of "crowd-funding", "sponsorship", "courses" and "events". Interview participants gave the following suggestions (Figure 31) "corporate support or sponsorship", profit making "courses", "endowments" and "philanthropy". One suggested "Industry membership could be looked at to make it more valuable." Participants didn't necessarily agree that the ASP needed to diversify its income, two comments from participants "the bigger issue is clever spending" and "I think that it does not need to find new ways to generate income, it could look

at its expenditure side if there is concern about balancing its considerable budget" identifies a different way of looking at increasing income for the ASP.

### Conclusion

One final comment highlighted the importance of maintaining the organisational culture of the ASP;

"The organisational culture of the ASP is such that individuals are allowed to take risks, they are engaged and they produce some really creative activities that make the ASP such a vibrant society."

This study highlighted the importance of ASP members feeling like they own part of the society. Overall ASP members were happy with the ASP Operations, the governance and mission and vision statements were congruent. Comments from participants and information from other sources all resonated with principles that promote good governance and the following changes are recommended:

#### 1) Changes to the Constitution

a) Make the election processes for Council explicit in the constitution with a page on the ASP website dedicated to explaining how to nominate someone for Council, how it will be decided who is elected.

b) Consider the representation of ASP members on Council, whether a student representative can be included.

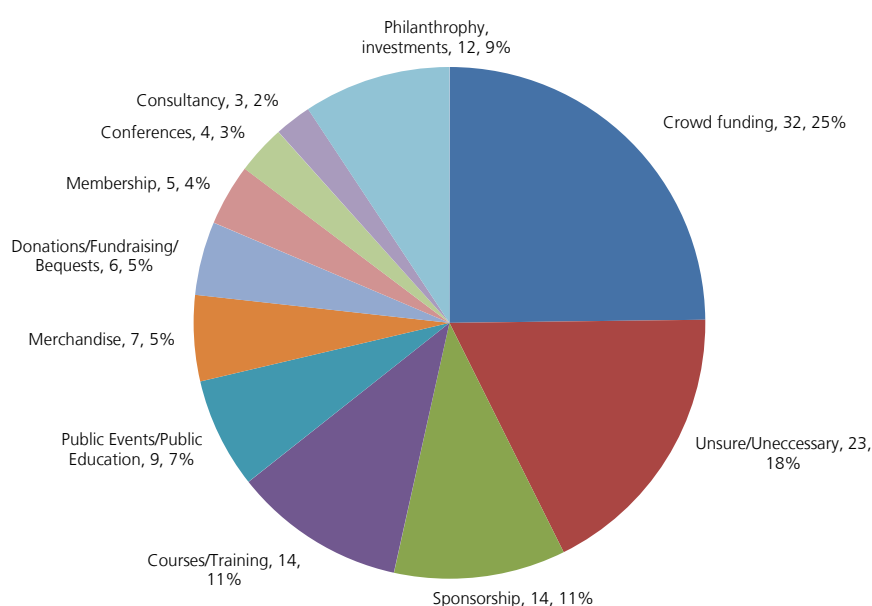
c) Assess voting status of Council and effect on decision making process.

2) Discuss with ASP membership whether the ASP should try to make profit from some of their activities and, therefore, increase income, and the ways this could be achieved.

3) Discuss with ASP membership workforce employed to deliver ASP Operations, whether this is desirable and sustainable long term to support the work of the ASP volunteers to benefit the Society and the discipline of parasitology.

Any proposed interventions need to have ASP membership support before being delivered and the change management process will be evaluated to enable the ASP to be a learning organisation within a changing macro-environment.

Core competencies of organisations are hard to imitate and achieved through people; with the right combination of people and communication channels the ASP could, as a team, contribute more than each individual and this has been seen with the success of ASP Operational Outputs. To continue to flourish in a constantly changing macro-environment the ASP needs to maintain competitive advantage as a learning organisation. Being able to lead change and deal with unplanned change are the core elements of learning organisations. With a focus on people with a shared vision; thoughtful communication; using systems thinking and continually challenging processes and taking risks the ASP has shown itself to being a learning organisation.



**Figure 5. Survey participant suggestions for "future ways the ASP might generate income", categorised into the top 10 themes, n=81**

# ASP Strategic Plan 2010

To accompany the 2016 Member Survey and to help the forthcoming Strategic Plan Review Meeting, we reproduce here the Society's Strategic Plan produced in 2010.

## Vision: our preferred future

That the ASP be known as an inclusive, vibrant and influential national Society, recognised both as a trusted source of expertise and information on parasite biology and control, and for its leadership in promoting and sustaining parasitology research and education for global benefit.

## Mission: what the ASP does

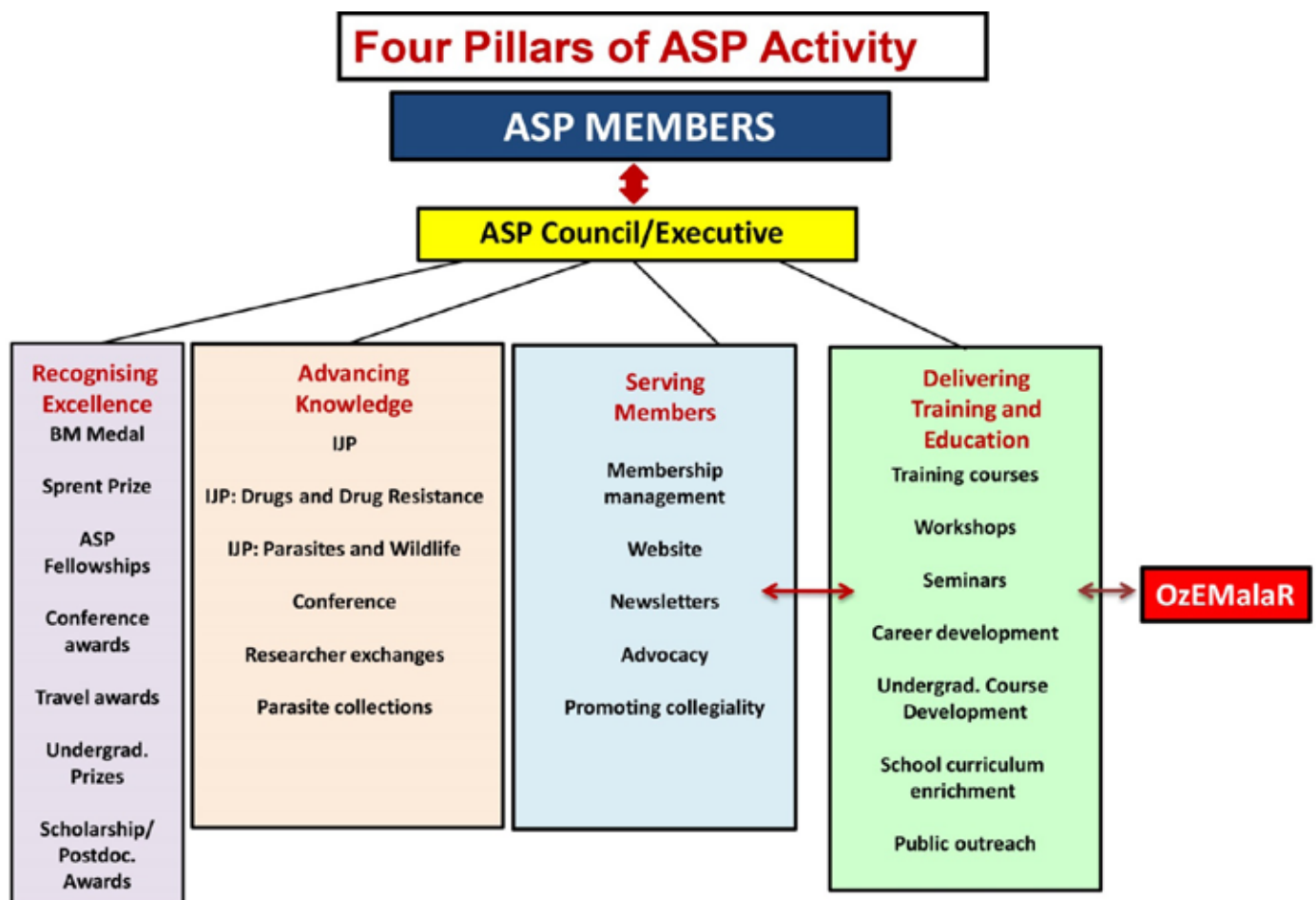
The ASP fosters the association of persons interested in parasitology, fosters the curation of collections of Australian parasites and, by facilitating intercourse and discussion, promotes investigation to advance our knowledge of parasitology and facilitates collaborative research, education and public outreach.

## Strategic Goals: how we achieve our mission

1. Continue to identify and address the needs of all our members in order to remain a vibrant and fully inclusive society
2. Sustain the IJP as a premier scientific Journal and support the development

of the new open-access journals, such as IJP: Drugs and Drug Resistance

3. Maintain the high quality of the ASP Conference in terms of participation of renowned speakers and engagement with the Asia-Pacific region
4. Encourage collaborative research and networking through personal interactions.
5. Facilitate the development of advanced training opportunities and student education initiatives and engage in public outreach
6. Provide professional management of the ASP including the preparation of a 5-10 year financial plan



## ASP Strategic Plan 2010 continued

The ASP's Mission is encapsulated in the following model which articulates our Four Pillars of activity (actions) that the society should/ could undertake to achieve its mission: **"Recognise-Advance-Serve-Deliver"**

### Recognising Excellence:

Continue to offer Awards and Prizes to recognise: outstanding achievements, contributions to the ASP and for the support of early career researchers: *fostered by Council and through its sub-committees and the ASP Network.*

### Advancing Knowledge:

Sustain the IJP as the pre-eminent international journal in the field of parasitology; create Open access parasitology journals to complement the IJP; develop mechanisms to encourage collaborative research; operate annual scientific meetings (Conference) including the participation of internationally renowned speakers; Support initiatives for enhancing the Society- sponsored parasite collections; *fostered by specific editorial teams and Council.*

### Serving Members:

Professionalise the ASP management; ensure all members are engaged with the Society by encouraging access through excellent website design and Newsletter presentation, use of surveys to inform Council of actions required to address the needs of members and by valuing the contributions of long term members and encouraging student members; advocate for parasitology at a political level by maintaining membership of Science and Technology Australia (STA): *fostered by Council.*

### Delivering Training and Education:

Providing training courses, networking opportunities, researcher exchanges, workshops, career development seminars, undergraduate education opportunities,

public outreach, and engaging in School education programs; *fostered through the ASP Network integrated into the Society.*

## The 4 Pillars of ASP Activity

### STRATEGIC PILLAR 1: RECOGNISING EXCELLENCE

Refers to Goals 1,2,3,4,6.

#### Actions Next Three Years

Sustain current ASP Awards and Prizes through investment income

Explore the financial and political viability of reintroducing Honours scholarships

Explore the financial and political viability of offering post graduate and postdoctoral scholarships and fellowships

#### Success Measures

ASP Awards and Prizes are esteemed as achievements of excellence in parasitology

#### Actions Next Five Years

Consider possibilities for new prizes and awards

Begin offering such new awards as have been approved

Develop sponsorship initiatives

Undertake dialogue with Research Institutes and University Research Departments to determine possibilities for collegiate cooperation.

#### Success Measures

New prizes and awards established

Positive dialogue established and additional sponsorship obtained

#### Actions Next Ten Years

Review portfolio of prizes and awards

Review sponsorship and networking initiatives

#### Success Measures

Prize portfolio reflects needs of members

Sponsorship and funding support the portfolio

ASP/cross institutional fellowship established

### STRATEGIC PILLAR 2: ADVANCING KNOWLEDGE

Refers to Goals 1,2,4,6

#### Actions Next Three Years

Ensure a well-managed Editorial succession process for the ASP Journals

Increase the financial return from the IJP

Launch a new open access IJP: Drugs and Drug Resistance building on the reputation of the IJP

Continue to offer the annual ASP Conference with input from scientists of international standing, fostering diversity in the plenary sessions as well as the contributed sessions in the program, ensuring a profile for all research areas in parasitology

Engage with New Zealand and the Asia-Pacific Region

Enquire into the possibility of establishing a mechanism for providing support for the maintenance and expansion of ASP-sponsored parasite collections

Investigate the efficacy of the various travel awards available to members

Consider whether additional journal offerings are needed

Consider balance between promotion of parasitology and research through journals,

## ASP Strategic Plan 2010 continued

Institutional open access channels or social media platforms?

### Success Measures

The IJP's reputation for excellence is sustained and recognised globally as the premier research Journal in the field of parasitology

Open access journal IJP: Drugs and Drug Resistance is established successfully. Increased income from the journals

Conference attendance numbers improve

Support for parasite collections validated or discontinued

Audit of travel awards completed

### Actions Next Five Years

Review both ASP Journals to ensure excellence and relevance

Review conference programs

Establish mechanisms for support of parasite collections; if validated

Portfolio of travel awards edited to meet members' needs and the societies' resources are adequate

Establish new open access journal IJP: Parasites and Wildlife

Revise e-textbook

### Success measures

Both IJP and IJP D&DR journals remain financially sound

Both journals have competitive citation indices

Increased income to sustain ASP activities

Conference attendance numbers improve

Portfolio of travel awards can be supported financially and meets members' needs

### Actions Next Ten Years

Continue to review ASP Journals to ensure excellence and relevance

Monitor the changing face of parasitology to determine which are the disciplines that might need enhanced support

Conduct a survey of members to decide on preferred conference organization and content

### Success measures

The ASP sponsored journals continue to be relevant and successful

Appropriate actions have been taken to ensure that the travel awards scheme is well patronized

Parasite collections are well maintained and providing a useful resource for members

Survey outcomes are put into action

The high quality of the ASP Conference continues to be sustained

### STRATEGIC PILLAR 3: SERVING MEMBERS

refers to ASP goals 1, 2, 4, 6.

### Actions Next Three Years

Identify the needs of our members through a variety of communication media; in particular to survey younger members to determine their needs

Establish new opportunities for members to engage with the Society and to improve collegiality

Consider encompassing plant parasitologists in the ASP

Provide professional support for the Treasurer and other members of the Executive

Prepare a paper redefining the roles of key

management personnel

Continue to improve and update the web page

Address any previously unknown needs of the members as indicated through improved communication channels

Maintain the quality of the Newsletter

Review the Constitution to ensure relevance to the current ASP

Apply for ARC Linkage or other grant to obtain data for a paper advocating for change to National Research Priorities to recognise the socio-economic impact of parasites; publish data in a high impact Journal

Ensure active membership of STA, including lobbying for parasitology as a research priority

### Success Measures

High level of interaction with members through good communication

Annual surveys record high level of satisfaction amongst members with regard to services and initiatives provided by the Society

Sustained or increased membership

Increase retention of members who are moving from student to full membership

Increased awareness by members of relevance of National Research Priorities

Achieve grant

Relevant Constitution in place

### Actions Next Five Years

Complete a grant and write a paper to inform, and advocate for, changes to National Research Priorities

## ASP Strategic Plan 2010 continued

Continue lobbying for parasitology as a research priority through membership of STA

Develop and implement new initiatives identified as needed to meet members' needs

### Success measures

Paper published

Parasitology gaining a higher research priority

New initiatives successful, membership increasing

Council operating efficiently and effectively

### Actions Next Ten Years

Continue to advocate for changes in National Research Priorities to recognise the socio-economic impact of parasites

Continue lobbying for parasitology as a research priority through membership of STA

Increase public awareness of socio-economic impact of parasites by continuing to educate government, universities, industry, and general public

### Success measures

Research proposals in parasitology competitive

General public more supportive of parasitology and understanding of socioeconomic impacts

Sustained or increased membership actively engaged in society activities

Increased membership of young career researchers

Constitution updated and relevant

## STRATEGIC PILLAR 4: DELIVERING TRAINING AND EDUCATION

Refers to ASP goals 1, 2, 3, 4, 5, 6.

### Actions Next Three Years

Ensure face-to-face activities are maintained

Establish the new entity as an operating unit of the ASP to raise cash and in-kind support to ensure the long-term future of our training and education activities

Establish and staff the new ASP Network

Foster research exchanges and mentoring

Conduct workshops on targeted topics

Develop focused satellite training courses for postgraduates around each ASP Annual Conference: identify a course topic and develop a pilot model for implementation in Cairns in 2011 and beyond

Closely monitor Charity status from income- be aware of implications and have a Plan B

### Success Measures

High level of engagement by members with Network initiatives

Members' careers fostered

Positive feedback from public regarding awareness and impact of parasites

Cash and in-kind support received

### Actions Next Five Years

Increase international linkages through connections to other Societies, joint meetings with New Zealand and Asia-Pacific Societies, and shared membership with other Societies

Explore ways to use technology to facilitate international linkages

Encourage early career parasitology researchers by increasing travel awards and further developing mentoring scheme (brokering knowledge with ASP Fellows)

Develop nationally and internationally recognised training program, and bring in trainees from the Asia-Pacific region

Continue to expand revenue-raising opportunities

Continue to offer Workshops and the like

### Success measures

Continued engagement by members

Increased income and resources

Improved international linkages

Increase use of communication technologies

Increased membership of early career researchers

Continued participation by members and others in training programs & the like

### Actions Next Ten Years

Create an Australia-based 'Woods Hole-like' training course in Parasitology

Interact with High school educators to provide curriculum enrichment for High school students

### Success Measures

ASP run parasitology training course in Australia

Engage with educators to provide parasitology content

# IJP

INTERNATIONAL JOURNAL FOR PARASITOLOGY

[www.journals.elsevier.com/  
international-journal-for-  
parasitology](http://www.journals.elsevier.com/international-journal-for-parasitology)

**Editor In Chief: Brian Cooke**

**Facebook:** [www.facebook.com/  
IJPara](http://www.facebook.com/IJPara)

**Twitter:** @IJPara

**Instagram:** ijpara

## 2016 Highlights


The major IJP news in 2016 was that we broke the '4 barrier' with an Impact Factor of 4.242 (© Thomson Reuters Journal Citation Reports 2016).

The IJP team remain confident that the IJP will continue to prosper under Brian's leadership and are looking forward to what lies ahead.

Some other highlights from 2016 include:

- IJP continued the experiment with

social media, with a Facebook page started in March 2015 ('liked' by 1480 people to date; [www.facebook.com/IJPara](http://www.facebook.com/IJPara)) and Twitter in October 2015 (83 followers to date; @IJPara and now also on Instagram (45 followers to date; ijpara). Look for the green

 on black IJP logo (the 'real' IJP page). We feature a 'story behind the cover' for each IJP issue, so if you have a paper accepted for publication, see what you can do to create an amazing cover image and submit it to us for consideration. If your submitted image is selected for the journal cover it, and your article, will be promoted on Facebook, Twitter and Instagram.

- Together with Dale Seaton of Elsevier, Brian developed a talk, tailored to early-career researchers, based around the Elsevier Publishing Campus on 'how to publish your papers'. Brian and Dale first presented the talk at a very successful ERC breakfast at the joint NZSP+ASP conference in Auckland, then again at MAM2016 in Lorne. Brian has developed a

modified version of the talk and has delivered this over the last 2 years to the students on the ASP parasitology course in Kiola. Let Brian know if you would like him to give this presentation to your institution !



Nick Clark and colleagues (45:14 pp 891-899) created the most social media activity to date for an IJP paper and was featured on ABC News, Radio National and the BBC world Service. His paper is a fascinating piece of work on the high prevalence of avian malaria parasites in invasive Indian Mynahs and their potential threat to native wildlife and domestic birds in Australia and elsewhere.

Editors are working on some Special Issues to look forward to in 2017:

- Molecular Approaches to Malaria (MAM) 2016 conference (publication planned in February))
- Singapore Malaria Network (SingMalNet) 2016 meeting (publication planned for March)

As usual, 2016 has been a busy year for IJP. We are grateful to the Editorial Board members, reviewers and authors who continue to make IJP the highest cited journal dedicated to parasitology and publishing original research articles.

We hope that you all enjoy a well-earned rest over the holiday season and look forward to working with you again in 2017 and beyond.



<http://www.journals.elsevier.com/international-journal-for-parasitology-parasites-and-wildlife/>

**Editors: R.C. Andrew Thompson, Lydden Polley**

**Facebook: [www.facebook.com/IJPPAW/](http://www.facebook.com/IJPPAW/)**

*IJP-PAW* has a Facebook page, please check it out and like us and some of our articles so we can promote the journal and all of the wonderful research published through *IJP-PAW*

### As 2016 draws to a close

As 2016 draws to a close, submissions continue to arrive and we are likely to top the 80 mark before the end of December – a significant increase over the last couple of years. The quality of articles continues to be very high and the fantastic diversity of topics covered is our major strength – ranging from host-parasite co-infections, to climate change, ectoparasites on deep sea fish, and parasites of bees – to mention just a few!. We have a special issue on Invasions underway and plans for two more special issues in 2017. Although we are still waiting for Thomson's to release our Impact Factor, Elsevier have introduced their metric, CiteScore, which is likely to receive broad acceptance as a valuable alternative to the Impact Factor – more information can be found on the IJP:PAW website by following the links. Our 2015 CiteScore is 2.7, ranking us 12 out of 58 parasitology journals, and ahead of *Acta Tropica*,

Parasitology, Veterinary Parasitology and Experimental Parasitology.

**On the cover of this newsletter. A rare sighting of the definitive host of *Echinococcus oligarthrus*, Geoffroy's cat (*Felis geoffroy*) taken at Iguazu falls in Argentina (Stephanie Thompson).**

**Below. The woylie (*Bettongia penicillata*) in the SW of Western Australia (Murdoch Parasitology). The woylie is critically endangered and were it to become extinct so too would a wealth of its parasites, including a flea, tick, tapeworm, several protozoa and a newly described oxyurid nematode (*Potoroxyuris keninupensis*) (see Hobbs and Elliot, *International Journal for Parasitology:Parasites and wildlife* 5 (2016) 211-216.**





**IJP** INTERNATIONAL  
JOURNAL FOR  
PARASITOLOGY

## Drugs and Drug Resistance

[www.journals.elsevier.com/  
international-journal-for-  
parasitology-drugs-and-drug-  
resistance/](http://www.journals.elsevier.com/international-journal-for-parasitology-drugs-and-drug-resistance/)

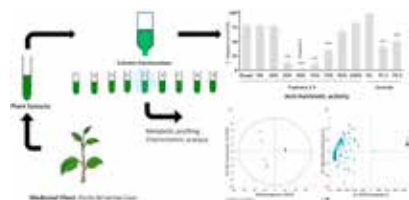
**Editors In Chief: Andrew  
Kotze & Kevin Saliba**

**Facebook: [www.facebook.  
com/IJDDR/](https://www.facebook.com/IJDDR/)**

*IJP-DDR* has a Facebook page,  
please check it out and like us  
and some of our articles so we  
can promote the journal and  
all of the wonderful research  
published through *IJP-DDR*

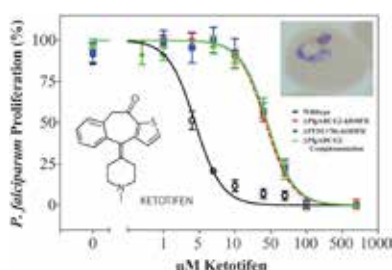
## Happy New Year

Happy New Year from the Editors of  
*IJP: DDR* Kevin Saliba and Andrew  
Kotze. The following articles featured  
are from ASP members and our  
December 2016 issue *International  
Journal for Parasitology: Drugs and  
Drug Resistance*, Volume 6, Issue 3,  
Pages 141-370 included articles from  
the scientific meeting: "Anthelmintics:  
From Discovery to Resistance II", pp.  
288 - 370.

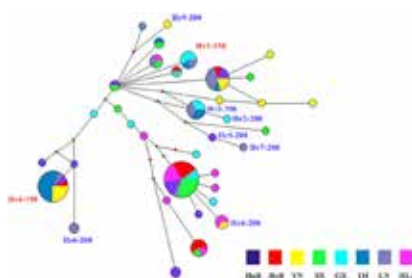


Rasika Kumarasingha, Avinash V. Karpe,  
Sarah Preston, Tiong-Chia Yeo, Diana S.L.  
Lim, Chu-Lee Tu, Jennii Luu, Kaylene J.  
Simpson, Jillian M. Shaw, Robin B. Gasser,  
David J. Beale, Paul D. Morrison, Enzo A.  
Palombo, Peter R. Boag, "[Metabolic  
profiling and in vitro assessment of](#)

[anthelmintic fractions of \*Picria fel-terrae\*  
\*Lour.\*](#)", *International Journal for  
Parasitology: Drugs and Drug Resistance*,  
Volume 6, Issue 3, December 2016, Pages  
171-178, ISSN 2211-3207)

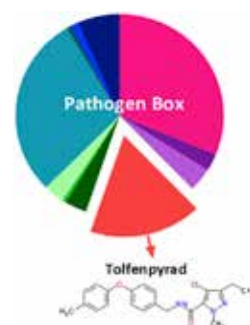


Phuong N. Tran, Cameron J. Tate, Melanie  
C. Ridgway, Kevin J. Saliba, Kieran Kirk,  
Alexander G. Maier, "[Human dihydrofolate  
reductase influences the sensitivity of the  
malaria parasite \*Plasmodium falciparum\* to  
ketotifen – A cautionary tale in screening  
transgenic parasites](#)", *International Journal  
for Parasitology: Drugs and Drug  
Resistance*, Volume 6, Issue 3, December  
2016, Pages 179-183, ISSN 2211-3207,  
[http://dx.doi.org/10.1016/j.  
ijpddr.2016.09.003](http://dx.doi.org/10.1016/j.ijpddr.2016.09.003).



Zongze Zhang, Robin B. Gasser, Xin  
Yang, Fangyuan Yin, Guanghui Zhao,  
Min Bao, Baoliang Pan, Weiye Huang,  
Chunren Wang, Fengcai Zou, Yanqin Zhou,  
Junlong Zhao, Rui Fang, Min Hu, "[Two  
benzimidazole resistance-associated SNPs in  
the isotype-1 -tubulin gene predominate  
in \*Haemonchus contortus\* populations  
from eight regions in China](#)", *International*

*Journal for Parasitology: Drugs and Drug  
Resistance*, Volume 6, Issue 3, December  
2016, Pages 199-206, ISSN 2211-3207, )



Sarah Preston, Yaqing Jiao, Abdul  
Jabbar, Sean L. McGee, Benoît Laleu,  
Paul Willis, Timothy N.C. Wells, Robin B.  
Gasser, "[Screening of the 'Pathogen Box'  
identifies an approved pesticide with major  
anthelmintic activity against the barber's  
pole worm](#)", *International Journal for  
Parasitology: Drugs and Drug Resistance*,  
Volume 6, Issue 3, December 2016, Pages  
329-334, ISSN 2211-3207, [http://dx.doi.  
org/10.1016/j.ijpddr.2016.07.004](http://dx.doi.org/10.1016/j.ijpddr.2016.07.004).



Thangadurai Mani, Catherine  
Bourguinat, Kathy Keller, Elena Carreton,  
Andrew Peregrine, Roger K. Prichard,  
"[Polymorphism in ion channel genes of  
\*Dirofilaria immitis\*: Relevant knowledge  
for future anthelmintic drug design](#)",  
*International Journal for Parasitology: Drugs  
and Drug Resistance*, Volume 6, Issue 3,  
December 2016, Pages 343-355, ISSN  
2211-3207, [http://dx.doi.org/10.1016/j.  
ijpddr.2016.06.003](http://dx.doi.org/10.1016/j.ijpddr.2016.06.003).

# Jobs



## PhD Scholarship available to investigate an emerging tick-borne illness in Sydney

**Location:** University of Technology Sydney – School of Life Sciences City campus (predominantly). The project also involves a large component of fieldwork. Consequently, the successful PhD candidate will be required to collect ticks from various locations in the greater Sydney metropolitan area.

**Remuneration:** Equivalent to the Research Training Program Stipend at the 2017 base rate, as detailed [here](#).

**The Opportunity:** Join the School of Life Sciences Molecular Parasitology Research Group, in collaboration with the Department of Microbiology at St Vincent's Hospital, Sydney, to help uncover the aetiological agent of an emerging tick related illness in the Sydney region. Following a parliamentary inquiry into an illness of unknown aetiology associated with tick bite, we are seeking a motivated PhD student to collect ticks from Sydney and its surrounds to investigate them for the presence of microbes that could be responsible for this illness.

**Eligibility and Admission Requirements:** Applicants must fulfil the criteria for PhD admission at UTS. The successful applicant will possess at least an undergraduate degree, preferably with training in the areas of microbiology and molecular biology, and a first class Honours or Masters degree. They will demonstrate a high level of academic achievement. Relevant industry experience will be considered. Applicants with a background in Linux/Unix operating systems and programming skills (in Perl, Python, R etc.), seeking a new challenge,

with an interest in biology are strongly encouraged to apply. Due to the fieldwork component, an Australian drivers license is required. Applicants must be an Australian permanent resident or citizen.

**Application Process:** Applicants will first submit an expression of interest (EOI) statement. This will include a short covering email, with an attached document containing a paragraph and several dot points describing your skills and justifying why they should be considered. This will be no more than one page, size 12 Arial font with double line spacing. As part of the EOI, the applicant must also provide a complete scan of their academic transcript and degree testamur or equivalent. Following EOI shortlisting, the strongest applicants will be invited to submit a full application (FA) where a complete cover letter and CV will be provided. This will include a list of any publications, achievements and other relevant information. The FA will also include the contact details of two academic referees. The strongest FA's will be shortlisted for interview. The interview can be performed via Skype if necessary. Interviews will be performed in English. Email all EOIs and FA's to Dr Joel Barratt at the email address provided below. Please include "TICK PHD" followed by either "- EOI" or "- FA" in the email subject heading where relevant.

**Key Dates:** EOIs open 30th of January 2017. Candidates are welcome to email their EOI to Dr Barratt from that time. EOI shortlisting will commence late March to early April. Invitations to submit a FA will be dispatched late May to early June. Those shortlisted to submit a FA will be personally notified of their FA due date. Interviews will commence in July. Official enrolment in the PhD program will occur by the UTS Spring census date: 25th of August 2017.

**Contact:** Dr Joel Barratt  
[joel.barratt-1@uts.edu.au](mailto:joel.barratt-1@uts.edu.au)



## Research Associate - G-quadruplex biology in the human malaria parasite *Plasmodium falciparum* (fixed term 3 years)

**Location:** Keele University, Faculty of Natural Sciences, Centre for Applied Entomology and Parasitology, Staffordshire, United Kingdom.

**Remuneration:** Starting Salary Grade 7: £32,004

**The Opportunity:** This post represents an exciting opportunity to join the laboratory of Dr Catherine Merrick, studying G-quadruplex nucleic acid structures and the helicases that unwind them in *Plasmodium falciparum*. Our recent work suggests that these may form a novel mechanism for controlling the transcription and recombination of var virulence genes, as well as the stability and evolution of the parasite genome as a whole. For further details, see Harris & Merrick, Plos Pathogens 2015 and Stanton et al., BMC Genomics 2016. A range of cutting-edge 'omic-level techniques, together with molecular genetics, will be employed and the project will be supported by a dedicated technician.

**Applications:** Applicants should hold a PhD in genomics, molecular biology or parasitology, with skills in cell culture, molecular biology and genomics/bioinformatics. Experience of *Plasmodium* molecular genetics is desirable but not essential. The appointee will benefit from the excellent facilities and diverse expertise of malaria biologists at Keele's Centre for Applied Entomology and Parasitology (CAEP).

## Jobs continued

For further information please contact:

[c.merrick@keele.ac.uk](mailto:c.merrick@keele.ac.uk)

<http://www.keele.ac.uk/caep/people/catherinemerrick/>

For full post details and to apply please visit: [www.keele.ac.uk/vacancies](http://www.keele.ac.uk/vacancies)

**Closing date for applications:** Feb 5th 2017

**Interviews will be held on:** ~late February

### **Research Associate (2 positions) - DNA replication dynamics in the human malaria parasite *Plasmodium falciparum* (fixed term 5 years)**

**Location:** Keele University, Faculty of

Natural Sciences, Centre for Applied Entomology and Parasitology, Staffordshire, United Kingdom.

**Remuneration:** Starting Salary Grade 7: £32,004

**The Opportunity:** These posts represent an exciting opportunity to join the laboratory of Dr Catherine Merrick, working on an ERC-funded project to study DNA replication in *Plasmodium falciparum*. Dr Merrick recently developed a novel technique to follow DNA replication in malaria parasites at the whole cell, genomic, and single-molecule levels (see Merrick, Malar J. 2015). This large-scale project will now examine replication and the cell cycle at several stages of the *Plasmodium* lifecycle, using a range of cutting-edge techniques in molecular genetics and genomics. The project will be supported by a dedicated technician.

**Applications:** Applicants should hold a PhD in molecular biology, genomics or parasitology, with skills in cell culture, molecular biology and/or genomics and bioinformatics. Experience of *Plasmodium* molecular genetics is desirable but not essential. The appointee will benefit from the excellent facilities and diverse expertise of malaria biologists at Keele's Centre for Applied Entomology and Parasitology (CAEP).

For further information please contact:

[c.merrick@keele.ac.uk](mailto:c.merrick@keele.ac.uk)

<http://www.keele.ac.uk/caep/people/catherinemerrick/>

For full post details and to apply please visit: [www.keele.ac.uk/vacancies](http://www.keele.ac.uk/vacancies)

**Closing date for applications:** Feb 5th 2017 Interviews will be held on: ~late February

## Fellows of the Society: names to the faces

Here are the names of the five ASP Fellows shown on page 9.



**Warwick Nicholas**  
FASP 1979



**Jo Mackerras**  
FASP 1967



**Colin Dobson**  
FASP 1986



**Bruce Copeman**  
FASP 2004



**Ken Bremner**  
FASP 1984

To read a brief biography of each Fellow, visit  
[parasite.org.au/the-society/fellows-of-the-society/](http://parasite.org.au/the-society/fellows-of-the-society/)

# Events

## V Parasitology Summer Course (ParSCo)

8-15 July 2017, Basilicata, Italy



### Residency Course on Arthropod vectors and transmitted pathogens in the Mediterranean Area

Cari colleghi, Following four consecutive successful years, we are pleased to

announce the fifth edition of the Parasitology Summer Course (V ParSCo) organized by the Parasitology and Mycology Unit of the Department of Veterinary Medicine, University of Bari (Italy), with the support of the European Veterinary Parasitology College (EVPC) and of Parasites & Vectors. Over the last years, more than 60 post-graduate, doctoral and research fellows from all continents in the world have enjoyed attending the ParSCo.

The main goal of the course is to provide updated information on biology and ecology of ticks, sand flies and other vectors of pathogens in the Mediterranean area. At the end of the course, they should be able to collect and identify important arthropod vectors (i.e., ticks,

sand flies, and *P. variegata*) as well as to diagnose *Cercopithifilaria baina* and *Troglostrongylus* spp. infestation and *L. infantum* infection in dogs. Elements of clinical parasitology, presentation and diagnostic procedures of TBDs and CanL will also be provided

**Venue:** Parco Regionale di Gallipoli Cognato, Matera, Basilicata, Italy

**Participation fee:** €1000

**Applications close** 17th Feb 2017

**A flyer with full details of the course and an application form can be downloaded from the ASP website:**  
<http://parasite.org.au/wp-content/uploads/2016/12/V-Parsco-Programme1.pdf>

## TropAg

20-22 November 2017, Brisbane



**TropAg2017, the world's leading tropical agriculture and food science conference, will showcase Queensland agriculture innovations and technologies in Brisbane on 20-22 November 2017.**

Announced by the Hon. Bill Byrne MP, Minister for Agriculture and Fisheries

on 23 November, the highly successful AgFutures conference will be incorporated into TropAg to showcase the state's latest developments and applications in digital and data platforms, robotics, satellites and biotechnologies.

AgFutures 2016 was hosted by the Department of Agriculture and Fisheries

in Queensland and attracted over 300 delegates.

The AgFutures2017 stream at TropAg will feature new technologies, business systems and the industry-wide investment that is required for innovations critical to the future of agriculture and discuss the opportunities associated with feeding a global population of 9 billion by 2050.

### Call for Symposia Proposals

Proposals for other symposia for TropAg2017 across five themes are still open. Symposia proposals are to be submitted on the application form by 31 January 2017 via email to [TropAg2017@expertevents.com.au](mailto:TropAg2017@expertevents.com.au).

**Visit the TropAg website:**  
<http://tropagconference.org/>

#timetogoforvivax



## 6<sup>th</sup> | International Conference on Plasmodium vivax Research

JUNE **11-14** 2017

MANAUS

### CONFIRMED INVITED SPEAKERS

NICHOLAS WHITE (OXFORD/MAHIDOL, THAILAND)  
LUCIO LUZZATTO (MUHIMBILI U, TANZANIA)  
KEVIN BAIRD (OXFORD/JAKARTA, INDONESIA)  
RHOEL DINGLASAN (U. FLORIDA, USA)  
ARTURO REYES-SANDOVAL (OXFORD, UK)  
INGRID FELGER (STMI, SWITZERLAND)  
JOSEPH VINETZ (UCSD, USA)  
WEI-HONG THAM (WEHI, AUSTRALIA)  
SEBASTIAN MIKOLAJCZAK (CIDR, USA)  
MICHAEL WHITE (IMPERIAL COLLEGE, UK)  
SOPHIE ALLAUZEN (GATES FOUNDATION)  
PEDRO ALONSO (WHO, SWITZERLAND)

### ORGANIZING COMMITTEE

MARCUS LACERDA  
(PRESIDENT)  
WUELTON MONTEIRO  
STEFANIE LOPES  
CARMEN FERNANDEZ-BECERRA

### SCIENTIFIC COMMITTEE

HERNANDO DEL PORTILLO  
(PRESIDENT)  
MARY GALINSKI  
(VICE-PRESIDENT)

**ONLINE REGISTRATION ONLY**  
**ABSTRACT SUBMISSION DEADLINE MARCH 31<sup>ST</sup>**

**IF REQUESTING A TRAVEL AWARD DEADLINE IS JANUARY 31<sup>ST</sup>**

**TROPICAL MANAUS ECORESORT**

[WWW.TROPICALMANAUS.COM.BR](http://WWW.TROPICALMANAUS.COM.BR)



[ICPVR2017@GMAIL.COM](mailto:ICPVR2017@GMAIL.COM)



[WWW.ICPVR.ORG](http://WWW.ICPVR.ORG)



55 92 9114-7655



FIOCRUZ  
Fundação Oswaldo Cruz



# State News

## Victoria

### Monash University

**Darren Creek's** lab in the Monash Institute of Pharmaceutical Sciences been successful in obtaining an NHMRC project grant to investigate the mechanism of action of the OZ antimalarials. This grant is held with **Sue Charman** (CIB) and **Laura Edgington-Mitchell** (CIC), also from MIPS.

## Western Australia

### Murdoch University

We have had some notable milestones this year at Murdoch University. Professor **Andrew Thompson** retired in July after almost 40 years at Murdoch. Andy's achievements are well known to everyone in the field of parasitology. He has had an outstanding research and teaching career

and been a friend and mentor to generations of students. He will of course remain active in retirement and still has many projects and graduate students to keep him busy.

An extra big congratulations to **Stephanie Kemner (née Godfrey)** who tied the knot at home in Adelaide last month. Below is a photo of their lovely wedding cake. Steph will be leaving us in the new year to take up a position at Otago University. This is a great opportunity for Steph. We will miss her energy and enthusiasm, but hopefully continue to collaborate long into the future. During her time with our group, as a



### \$400 Undergraduate Prizes

The Australian Society for Parasitology is pleased to announce that it will be offering undergraduate student prizes of \$400 each to Australian Universities identified as offering a suitable course in parasitology, for presentation to the best undergraduate student in parasitology (highest passing mark/grade). The course(s) must be taught by a financial member of the ASP (of more than one year standing), and must comprise at least 30% parasitology. **Requests for 2016 prizes must be made by the eligible University to the ASP Treasurer or Secretary by the 30th September 2016. Please complete the online application form:**

[www.parasite.org.au/awards/asp-undergraduate-prizes/](http://www.parasite.org.au/awards/asp-undergraduate-prizes/)

## State News continued

DECRA Fellow, she has made an enormous contribution to our research, particularly by providing an ecological focus to our research on parasites of wildlife and extending much of our activities in the field.

Congratulations all round to three of our PhD graduates who have moved on to new ventures this year. **Alison Hillman** has taken up a new position as Veterinary Officer in the Epidemiology and One Health team at the Department of Agriculture and Water Resources in Canberra last month after her thesis on "Urbanisation and small marsupials in the greater Perth region, Western Australia" was accepted. **Amanda Kristancic** is continuing on at Murdoch as a postdoctoral research fellow investigating public awareness of marsupials and their interactions with the environment after her thesis titled "*Toxoplasma* and mouse behaviour" was accepted. Fran Jones is continuing her research on *Giardia* at the Perth-based life sciences company Proteomics International Laboratories Ltd (PILL), after her thesis was accepted earlier this year. A method developed by PILL for blood tests, known as Promarker, was used to map samples of *Giardia*, discovering protein fingerprints distinguishing different strains. Promarker was developed by PILL, and applied to *Giardia* in partnership with Murdoch as

a result of an Australian Research Council Linkage grant awarded in 2010. The proof of concept study has been carried out with Murdoch and a leading US veterinary company. This collaboration will now be extended with the support of a \$45,000 grant from the Department of Industry, Innovation and Science, with the aim of developing a test for *Giardia* which can be performed in any pathology laboratory.

**Hosna Gholipour-Kanani**, from the University of Gonbad-Kavous in Iran, has joined us for a sixth month sabbatical. Hosna is a fish immunologist with a particular interest in the innate immune response as the first line of defence against infectious disease. She has been busying herself with a number of projects, including testing a new formulation of fish anaesthetic and working with some of our students on immune responses to bacterial infections in native freshwater fishes. We also had a number of Honours students this year: **Emily Lawlor**, examining the response to bacterial infections in western pygmy perch in a changing (warmer and drier) climate; **Debbie Pomersbach**, looking at aggregation and movement patterns in freshwater mussels; and **Cindy Palermo**, continuing our collaborative work with Professor **Una Ryan** on the enigmatic diversity of *Cryptosporidium* species in

freshwater fishes.

Next year **Kimberly Miller** will be joining the Vector and Waterborne Pathogens Group (VWPG) as a PhD student on ARC Linkage project entitled "Tiresome ticks: Understanding the ecology and transmission dynamics of tick-borne disease in Australia" (LP160100200). **Amanda Barbosa** and **Sylvia Squire** from VWPG attended the 2016 Concepts in Parasitology course in Kioloa, NSW and highly recommend it to all other PhD and Honours students.

## University of Western Australia

At the school of Pathology and Laboratory Medicine **Christopher Peacock's** student **Maria Lewis** has completed her Masters thesis titled 'Investigations into effectiveness of novel drug compounds against the proliferation of the parasite *Leishmania tropica*'.

### Closing dates for ASP awards

**ASP Fellowships**  
9 January 2017

**ASP Researcher Exchange, Travel  
and Training Awards & JD Smyth**  
17 March 2017  
29 September 2017

**Bancroft-Mackerras Medal for  
Excellence**  
30 September 2017

More information  
[www.parasite.org.au](http://www.parasite.org.au)

### ASP Outreach Funding

ASP members are encouraged to apply for ASP funding to support outreach in their state. Up to \$500 per event is available with a total per state or territory of \$2000 per calendar year. Initiatives should foster outreach by members and advance the field of parasitology. The funds can be used to support a wide range of activities - from seminars and symposia to "beer and nibbles" networking sessions of State members or any other parasitology-related event.

**Submit your proposal to your ASP State/Territory Representative for consideration.**

# Council of the Australian Society for Parasitology Inc.

## Executive



### President

**David Emery**

The University of Sydney

T: (02) 9351 3102

E: [president@parasite.org.au](mailto:president@parasite.org.au)



### President-Elect

**Una Ryan**

Murdoch University

E: [una.ryan@murdoch.edu.au](mailto:una.ryan@murdoch.edu.au)



### Treasurer

**Peter Rolfe**

Novartis

E: [treasurer@parasite.org.au](mailto:treasurer@parasite.org.au)



### Executive Secretary

**Colin Stack**

University of Western Sydney

Locked Bag 2797, NSW 1797

T: +61 2 4620 3237

E: [secretary@parasite.org.au](mailto:secretary@parasite.org.au)

## State Councillors



### ACT

#### **Giel van Dooren**

Research School of Biology,  
Australian National University,  
Canberra, ACT 0200  
T: +61 2 6125 3129  
E: giel.vandooren@anu.edu.au



### NSW

#### **Shokoofeh Shamsi**

Charles Sturt University  
Wagga Wagga, NSW 2678  
T: +61 2 6933 4887  
E: sshamsi@csu.edu.au



### NT

#### **Benedikt Ley**

Menzies School of Health Research  
Global and Tropical Health Division  
PO Box 41096  
Casuarina, NT 0811  
E: benedikt.ley@menzies.edu.au



### QLD

#### **Gillian Fisher**

Eskitis Institute for Drug Discovery,  
Griffith University,  
T: +61 7 3735 4415  
E: g.fisher@griffith.edu.au



### SA

#### **Danny Wilson**

University of Adelaide.  
T: +61 8 8313 8259  
E: danny.wilson@adelaide.edu.au



### TAS

#### **Barbara Nowak**

University of Tasmania  
AMC, NCMCRS  
Locked Bag 1370  
Launceston, Tasmania 7250  
E: B.Nowak@utas.edu.au



### VIC

#### **Nathan Bott**

RMIT University,  
T: +61 3 9925 7143  
E: nathan.bott@rmit.edu.au



### WA

#### **Crystal Cooper**

University of Western Australia,  
crystal.coper@research.uwa.edu.au

ASP Council continued

## Other Members of Council



### IJP Editor

**Brian Cooke**

Monash University,  
E: editor@IJP.org.au  
T: +61 3 9902 9146



### IJP:DDR Editor

**Kevin Saliba**

Australian National University  
kevin.saliba@anu.edu.au  
(02) 61257549



### IJP:DDR Editor

**Andrew Kotze**

CSIRO Animal, Food and Health  
Sciences  
andrew.kotze@csiro.au



### IJP:PAW Editor

**Andrew Thompson**

Murdoch University  
Murdoch WA  
T: (08) 9360 2466  
E: a.thompson@murdoch.edu.au



### Bancroft-Mackerras Medal Convenor

**Malcolm Jones**

University of Queensland  
E: m.jones@uq.edu.au



### Incorporation Secretary

**Tina Skinner-Adams**

Eskitis Institute for Drug Discovery,  
Griffith University,  
E: t.skinner-adams@griffith.edu.au



### ASP Network Convenor

**Nick Smith**

E: nick.smith@parasite.org.au



### ASP Executive Officer

**Lisa Jones**

ASP Network for Parasitology,  
James Cook University,  
Cairns Campus QLD 4878  
T: (07) 4232 1311  
E: lisa.jones1@jcu.edu.au



### Archivist

**Haylee Weaver**

Australian Biological Resources  
Study  
T: (02) 2 6250 9434  
E: Haylee.Weaver@environment.gov.au