President’s Message

News from the Management Committee
The South Australian Management Committee took over from the Western Australian committee at the biennial conference in Auckland. I would like to thank Immediate Past President Dr Elaine Davison and her committee for running the Society so well over the last 2.5 years. Among their many achievements I would like to highlight the following: managing the first exchange of students under the APPS-Phytopathological Society of Japan (PSJ) Student Exchange program; overseeing the first award from the Advancing Plant Pathology Fund - Australia (APPF-A) in association with the Plant Biosecurity Cooperative Research Centre; commissioning the 2012 Capability in Plant Pathology and Entomology Survey; and revising the APPS constitution. These and other activities are testament to an active and effective Management Committee and Society in general.

I would like to take this opportunity to introduce the new Management Committee: Associate Professor Amanda Able (Vice-President), Mrs Barbara Hall (Executive Secretary), Dr Jenny Davidson (Treasurer), Ms Sue Pederick (ex-officio assistant Executive Secretary), Ms Christine Horlock (Regional Councillor Coordinator), Dr Elaine Davison (Immediate Past-President) and Professor Kim Plummer (President-Elect). Drs Philip O’Brien and Peter Williamson continue as Editor-in-Chief of AuPP and Business Manager, respectively.

The committee has met four times since the conference. Activities underway include:
- drafting the 2-Year Plan (2013-2015) for wider consultation;
- discussing strategies for representing the Society’s Special Interest Groups without affecting their autonomy. Amanda Able has
contacted convenors of SIGs to initiate discussions about interactions between SIGs and APPS;
- getting the 2014 APPS-PSJ Student Exchange underway. Kim Plummer has called for applications from students interested in visiting a Japanese university and has prepared an application to the Australia-Japan Foundation for additional funds to support the visits;
- publicising recent achievements, including the successful outcome of the first APPF-A award. APPF-A awardee Elizabeth Czislowski completed honours in Associate Professor Elizabeth Aitken’s lab at the University of Queensland and is now undertaking a PhD in the same lab.

The Management Committee looks forward to working with you. We will invite you to comment on the 2-year plan shortly. Those of us who attended the conference in Auckland had many stimulating conversations with members who had good ideas to share and we are always open to suggestions for improving the running of our Society.

I am delighted to announce that APPS now has 505 members, which is the third largest number on record. This compares with 526 in 2011 and 519 in 2005. It is pleasing to see that membership continues to be strong.

_Eileen Scott_
<president@appsnet.org>

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**News from the Business Manager**

**Online payments**
Most Australian members will probably agree that the current method of online payments through the Commonwealth Bank (CBA) online shop is overly complicated and often causes problems. To overcome these issues I have been trialling a new system using a secure online form that submits payment details in an encrypted format directly from the APPS web site. The form is simple and quick. The information from the secure form is entered into the CBA merchant account using their secure method of upload. Receipts and tax invoices will be generated by the APPS database instead of the CBA and in future sent from the business manager.

Members from outside Australia have been using PayPal as a method of submitting credit card details. This method has also been causing
problems for some members whose departmental policy does not allow for PayPal payments. The two methods were used so that GST payments could be separated from non-GST payments.

In the 2014-2015 financial year all members will be able to use the new online form. Tax invoices (Australian payments) and receipts (non-Australian payments) will be stored in the APPS online database. Two advantages of doing it this way are that GST payments will be determined by country and tax invoices/receipts will be available for download should you misplace the one sent by email. Bank transfer (preferred option) and cheque will also be available.

Password Retrieval
Forgotten passwords are sent to a member’s email address from NoReply@appsnet.org. It is important that this address is not blocked by your SPAM filter or email client. If you cannot retrieve your password using the login retrieval system you may need to add the email address to your ‘Safe Senders List’.

Feedback on these or any other issues is always welcome.

Peter Williamson
Business manager, APPS

New members

On behalf of the Society, the Management Committee would like to welcome the following new members:

- Dr Steve Wylie
- Prof Matthew Dickinson
- Dr Alison Bentley
- Dr Tijana Petrovic
- Dr Maria Manjarrez
- Dr Peter Scott
- Dr Deividas Valiunas
- Ms Dawatage Perera
- Mr Bartley Bauer
- Dr Mee-Hua Wong
Horticulture Australia Limited Student Mentor Lunch

Lucy Tran-Nguyen (NT), Lindy Coates (QLD) and Daniel Hüberli (WA).

The 19th Australasian Plant Pathology Conference was held in Auckland last year. As for previous conferences, Horticulture Australia Limited (HAL) provided financial support. In addition to the APPS travel bursaries, HAL provided funds for 20 post graduate students and early career researchers to participate in a study tour to Auckland to attend the APPS conference, workshops and the student-mentor lunch. Each supported student/ECR was awarded a travel award certificate and funds of up to $1500 for conference registration, travel and workshop registration. All recipients presented either an oral or poster presentation. The excellent research presented from the successful candidates is highlighted in Tables 1 and 2.

Congratulations to the following recipients of the APPS Bursary Awards and HAL Study Tour Awards:

Table 1. HAL-supported students and early-career researchers

<table>
<thead>
<tr>
<th>Name</th>
<th>State</th>
<th>Presentation title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sian Contarino</td>
<td>WA</td>
<td>Endophytes and their potential use for biocontrol of <em>Phytophthora cinnamomi</em> in natural ecosystems</td>
</tr>
<tr>
<td>Dalphy Harteveld</td>
<td>QLD</td>
<td>The disease cycle of alternaria leaf blotch and fruit spot of apple</td>
</tr>
<tr>
<td>Shakira Johnson</td>
<td>VIC</td>
<td>Investigation of host-specificity determinants in <em>Venturia inaequalis</em> using a comparative genomics approach</td>
</tr>
<tr>
<td>Wycliff Kinoti</td>
<td>VIC</td>
<td>The characterisation and development of diagnostic tools for Ilarviruses infecting</td>
</tr>
</tbody>
</table>
Prunus species in Australia

Alistair McTaggart
QLD
The systematics of *Puccinia lagenophorae* in Australia

Zoe-Joy Newby
NSW
Hyperspectral leaf response of plants infected with *Phytophthora cinnamomii* and quantification of Phytophthora dieback in the Greater Blue Mountains World Heritage Area

Victor Puno
NSW
Biological races of *Fusarium oxysporum* f. sp. *niveum* in eastern Australia watermelon production regions

Rebecca Roach
QLD
*Pseudomonas syringae* pv. *porri* : a new pathogen of Australian onions

Louise Shuey
QLD
Diversity and classification of *Phellinus noxius* in Queensland and New South Wales

Table 2. APPS/HAL co-funded students and early-career researchers

<table>
<thead>
<tr>
<th>Name</th>
<th>State</th>
<th>Presentation title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sara Blake</td>
<td>TAS</td>
<td>Investigating the role of strigolactones in pea interactions with soilborne fungal pathogens</td>
</tr>
<tr>
<td>Kylie Chambers</td>
<td>VIC</td>
<td>Pathogenicity genes of <em>Leptosphaeria maculans</em>, the fungus that causes blackleg disease in canola</td>
</tr>
<tr>
<td>Melissa Cook</td>
<td>Tonga</td>
<td>Assisting local growers in organic home food production in Tonga</td>
</tr>
<tr>
<td>Alicia Greenhill</td>
<td>VIC</td>
<td>Sclerotial formation in <em>Sclerotinia</em></td>
</tr>
<tr>
<td>Ahsanul Haque</td>
<td>QLD</td>
<td>Botryosphaeriaceae fungi as a potential mycoherbicide for prickly acacia</td>
</tr>
<tr>
<td>Mohsen Khani</td>
<td>SA</td>
<td>Survival of <em>Phoma koolunga</em> on field pea stubble on or below the soil surface</td>
</tr>
<tr>
<td>Arslan Qureshi</td>
<td>QLD</td>
<td>The effect of bagging on the incidence of dendritic spot and stem end rot in varieites of mango</td>
</tr>
</tbody>
</table>
As well as the 20 HAL-APPS sponsored students and early career researchers, approximately 50 other people attended the HAL Student Mentor Lunch including: students, mentors, the APPS management committee and the APPS regional councillors. The renowned plant pathologist, Associate Professor Virginia Stockwell also attended and presented an inspirational talk to the students. Associate Professor Stockwell is a renowned plant pathologist from the Department of Botany and Plant Pathology, Oregon State University. Her talk covered her career progression from student to researcher and her research areas. Key points included networking skills, writing publications and grants, and research development. A highlight was the innovative ‘elevator talk’ where Virginia described a unique way for students to conduct a quick conversation to describe their research in a few sentences. The students were then given 10 minutes to practice their ‘elevator talk’. The Q & A session involved opening the discussion to the floor allowing students to address their questions to Virginia, members of the APPS management committee and the regional councillors. Questions included how to find work after their studies, when they should start writing papers, who to contact if they have supervisor problems, how to decide on the best research topic, and gender equality within the plant pathology discipline. Although the session was an hour long, it was jammed with activity once students were comfortable asking questions.

In total there were 71 students registered for the APPS conference, from which there was 70 student poster presentations and 26 student talks. There were nine students awards in total and many thanks to the APPS regional councillors and the other plant pathologists who spent their time judging the high calibre of student posters and talks. The awardees were:

- HAL best poster Samantha Edwards and Victor Puno
- HAL best oral presentation Sara Blake and Dalphy Harteveld
- CRC best poster Fumi Fukada
Reports from the Australasian Plant Pathology Society – Phytopathological Society of Japan Student Exchange Program

The exchange program for students between Australia and Japan occurred in 2013 to foster a closer relationship between the Australasian Plant Pathology Society (APPS) and the Phytopathological Society of Japan (PSJ). Below are the reports from the Japanese students that visited Australia.

Visiting the University of Queensland Ecosciences Precinct

Ayaka Uke
Department of International Agricultural Development
Graduate School of Agriculture
Tokyo University of Agriculture, Japan

Following the signing between the Australasian Plant Pathology Society (APPS) and the Phytopathological Society of Japan (PSJ), the second exchange program for students of both countries has been enforced to promote a closer relationship between two societies. Fortunately, I joined this program as one of the Japanese students and visited the University of Queensland (UQ) in Brisbane, Australia. During my stay in the University of Queensland Ecosciences Precinct from December 3-19, 2013, I had a great number of experiences, especially in the detection technique of plant DNA viruses.
The University of Queensland is located at the northern part of Australia, seven kilometres from the Brisbane CBD. The season in Australia was summer and the temperature was about 28-30 degrees Celsius during my stay. The Ecosciences Precinct, where I was accommodated, is a key component of the world-class life science research institute supported by the Queensland Government. At the Ecosciences Precinct, Dr. André Drenth and Dr. Andrew Geering were the hosts of my visit and handled it with warm hospitality and kindness. Currently, there are many post-doctoral fellows and Ph.D. students not only from Australia but also from other countries for their degrees. In UQ in general, there are also lots of international students, especially from Asia. In the laboratory, their target of research includes not only plant viruses but also fungi and other organisms. The laboratory for experiments was so large and spacious and each of the students and researchers had their own lab bench or compartment. I was surprised with the size of their laboratory by comparison with my lab in Tokyo. Apparently the building was moved here 2 years ago and that is why they have new facilities.
In the laboratory, as one of their research projects is the detection of viruses in the genus *Badnavirus*, Banana streak viruses for example, I mainly studied the detection technique of Badnaviruses and other DNA viruses. To conduct experiments nicely, I had several talks with Dr. Geering by email in advance and prepared well before my departure. To distinguish whether endogenous or episomal *Badnavirus* genes of banana (*Musa* sp.) and aucuba or ‘aoki’ (*Aucuba japonica*) are in the plants, TempliPhi reaction was conducted. First, PCR was done and checked the amplification size of DNA using the universal primers for *Badnavirus*. After checking the bands, the amplified DNA by TempliPhi reaction was cut by restriction enzymes. After that, DNA was checked by gel electrophoresis and compared the band patterns. Fortunately interesting band patterns of *Badnavirus* from aucuba were found and will be used for final identification. These PCR and gel electrophoresis assays are the same system that I use in my laboratory in Japan. At the beginning, however, it was difficult to do everything because I was not familiar with the facilities and chemicals. Eventually it turned out smoothly and I found that this is really a good chance to learn new things. Moreover, I had an opportunity to present my research at an informal seminar for about 20 min. As it was my first time to make a presentation in English I felt uneasy, but I could get good advice from an audience from whom I cannot normally get comments. Yes, that was really a wonderful experience to me. At the beginning of the presentation, I showed pictures of my laboratory in Tokyo. The pictures seemed to make them surprised because they saw how my lab can accommodate over 40 students with this very small space compared to UQ.

While I was staying, laboratory members kindly took care of me, not only with the experiments but more importantly taking me around Brisbane city and inviting me for dinner. I have been to Uganda for my research several times, but when I was there my supervisor and Japanese researchers were also together and helped me. So my stay in Australia was my first experience abroad without any Japanese around me. Also, it was my first time to do experiment in developed country. Even though, thanks to the support of laboratory members I could complete my planned study on detection methods of *Badnavirus*. Furthermore, I was able to observe and enjoy the culture and lifestyle in Australia.
To reward people who made great support for this short-term research study in Australia, I will study much harder to be a plant virologist in the future.

Lastly, I would like to thank Dr. Eileen Scott and members of Australasian Plant Pathology Society and Phytopathological Society of Japan. I would like to extend my gratitude to Dr. André Drenth, Dr. Andrew Geering and other laboratory members for their warm hospitality and kind support during my visit.

Laboratory members with Dr. André Drenth (far left) and the author (the second from the right).

With Dr. Andrew Geering.
Visiting Massey University and attending the APPS conference

Fumi Fukada
Laboratory of Plant Pathology
Life and Environmental Sciences
Graduate School of Kyoto Prefectural University, Japan

Following the agreement between the Australian Plant Pathology Society (APPS) and the Phytopathological Society of Japan (PSJ), the exchange program of students between both countries has been enforced to promote a closer relationship between the two societies. I applied to this program for two reasons. The first reason is that I wanted to realize the world top-level scientists in the world who lead cutting-edge research at great laboratories, and the second reason is that I wanted to know what is needed to become an international Japanese scientist. Fortunately, I was selected as an exchange student and I got a great opportunity to visit to Massey University in Palmerston North, New Zealand and to attend the APPS conference in Auckland from 13th November to 1st December. I sincerely appreciate the organizers of APPS and JPS for the kind support and encouragement.

First, I visited the laboratory of Professor Barry Scott at Massey University, Institute of Fundamental Science and stayed there for 10 days. This laboratory is famous for excellent research on the molecular genetics of epichloe endophytes that form symbiotic associations with temperate grasses. During my stay at the lab, I learned the experimental technique of confocal microscopy and transmission electron microscopy, and observed growing hyphal structure of epichloe endophyte in the leaf sheath. The experimental samples were the wild type and the noxA mutants, a gene encoding the catalytic subunit of NADPH oxidase, and I compared the structural difference of growing hyphae in the plants between them. Although it was the first time to analyze endophytes and to use confocal and transmission electron microscopes, the postdoc in the lab and the director and technician of the Microscopy Image Centre carefully guided me how to manipulate and analyze this fungus by using these microscopes. Thanks to this kind support, I was able to learn not only the way to use these microscopes by myself, but also how endophytes grow and make endophyte-plant symbiotic interactions. In addition to have a good opportunity for this experimental training, I was thankfully given an opportunity to have a seminar about my research. Also, I was very happy to have an opportunity to learn research in the laboratory. Ten researchers in the lab individually gave me explanations about their research, so that I could have a good experience discussing with them. Although people in this lab have various backgrounds; different age, sex, nationality, culture and position, all people have a consistent thinking that ‘I love my work’. And they worked energetically and loved so much discussion. I realized that this kind of thinking is the most important thing to motivate researches, and this thinking is essential to be a great scientist.
Observation of the growth of endophytes in a leaf sheath by confocal microscope

Hyphal growth of WT and noxA mutants by confocal microscope
The wild type (left) and the noxA mutants (below) of hyphae of epichloe endophyte. Fungal cell wall and septum were stained by aniline blue and calcofluor white, respectively. While the wild type extended along the plant cell with regularly, the noxA mutants extended irregularly and abnormal hyphal branching and septum formation were observed.
Observation of the growth of endophytes in a leaf sheath by Transmission electron microscope
Hyphal growth of WT and noxA mutants in plant intercellular space by transmission electron microscope. The wild type (left) and the noxA mutatants (below) of hyphae of epichloe endophyte. While the wild type extended one or two hyphae at the plant intercellular space, the noxA mutants extended several hyphae and abnormal cell wall and organelle were also observed.

With postdocs and students at Massey University

After staying in Professor Scott’s lab, I attended the 19th Australasian Plant Pathology Conference in Auckland. This conference had 139 oral
presentations and 148 poster presentations about nematology, virology, mycology and bacteriology. The conference included various kinds of research fields so that I could extend my knowledge widely and make my research most objective. This conference also had special lectures and a lunch seminar for young scientists that made me think over what to do in the future as a scientist, seriously. At this conference, I had a poster presentation and, fortunately, I won the student poster presentation award. And also, thanks to the APPS organisers, I was invited to be a co-chair of the session on Biological Interactions and Plant Diseases with Professor Eileen Scott. All of these experiences were special and honourable for me, and brought me precious motivation for my own research.

Through this exchange program, I was able to learn the importance of taking action. I went abroad by myself, visited an overseas laboratory...
and communicated with foreign people who I had not met before. All experiences were the first time for me. Although this program was so challenging, I think this experience is so special because I could watch, listen, talk, feel and think there. 'Not to be afraid to take the first step, and to put into practice with courage.' This thinking made me to get new values and broaden my horizons. Although challenging something new is so hard, taking action accompanies good confidence with courage.

Next year, I’m planning to enter the doctoral course at the same laboratory, after completing the master course program at Kyoto Prefectural University. I will do my best on my research with a hungry spirit, keeping mind to thank the people and environment around me, and I convince myself that I should be honest to yourself, and love my work. This exchange program became so important to consider my future career. Without the support of this program, nothing can spare this precious experience. I sincerely hope that this program will continue in the future and more people can get opportunities to have great experiences.

Finally, I sincerely thank Prof. Barry Scott, Dr. Tetsuya Chujo, and the laboratory members at Massey University for providing me not only with the microscopic techniques but also kind and heartwarming cooperation. I also thank Prof. Eileen Scott (APPs) and Prof. Keiko Natsuaki (JPS) for their support and efforts for my visit to New Zealand and giving me lots of kind suggestion.

Below is a snapshot of some events involving the Tasmanian contribution to plant pathology. Contributions for future newsletters can be sent to robert.tegg@utas.edu.au

**Regional news from Tas**

**8th Australasian Soilborne Diseases Symposium (8ASDS) – Hobart, Tasmania November 10-13, 2014**

Many Tasmanian APPS members and other plant pathologists are in the midst of preparing for 8ASDS later this year. To date:
Confirmed major sponsors

Grains Research and Development Corporation
Horticulture Australia Limited

Major social events

Opening reception at MONA
Conference dinner at Henry Jones Art Hotel

Special student event

Student get-together and dinner on Tuesday 11th

Nematode workshop

Thur 13th – Fri 14th

International speakers are to be confirmed in the near future.

Registration is now open and papers are being accepted, for more information follow the link: http://www.appsnet.org/asds/

Robert Tegg

Regional news from Vic
In March we held a branch meeting at AgriBio. The meeting was attended by 35 people with many members travelling from across Melbourne. The meeting consisted of a keynote presentation by LTU lecturer Phil Keane who gave an inspiring talk on his research career in plant pathology. The second presentation was by DEPI staff member Dr Rachel Mann, in honour of her winning the Alan Kerr best thesis award at the 19th Australasian Plant Pathology Conference in Auckland. Our last two talks were from Alicia Greenhill and Wycliff Kinoti, who are both students based at AgriBio and received travel bursaries from the APPS to attend the conference in Auckland.

Angela Van de Wouw