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# The Australasian Bat Society Newsletter

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Number 37

November 2011

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## **– Instructions for Contributors –**

The *Australasian Bat Society Newsletter* will accept contributions under one of the following two sections: Research Papers, and all other articles or notes. There are two deadlines each year: **10<sup>th</sup> March** for the April issue, and **10<sup>th</sup> October** for the November issue. The Editor reserves the right to hold over contributions for subsequent issues of the *Newsletter*, and meeting the deadline is not a guarantee of immediate publication.

***Opinions expressed in contributions to the Newsletter are the responsibility of the author, and do not necessarily reflect the views of the Australasian Bat Society, its Executive or members.***

For consistency, the following guidelines should be followed:

- Emailed electronic copy of manuscripts or articles, sent as an attachment, is the preferred method of submission. Faxed and hard copy manuscripts will be accepted but reluctantly! Please send all submissions to the *Newsletter* Editor at the email or postal address below.
- Electronic copy should be in 11 point Arial font, left and right justified with 16 mm left and right margins. Please use Microsoft Word; any version is acceptable.
- Manuscripts should be submitted in clear, concise English and free from typographical and spelling errors. **Please leave two spaces after each sentence.**
- Research Papers should include: Title; Names and affiliation of authors and an email address for corresponding author; Abstract (approx. 200 words); Introduction; Materials and methods; Results; Discussion; and References. References should conform to the Harvard System (author-date; see recent *Newsletter* issues for examples).
- Technical notes, News, Notes, Notices, Art etc should include a Title; Names and affiliation of author(s) and an email address for the corresponding author. References should conform to the Harvard System (author-date).
- All pages, figures and tables should be consecutively numbered and correct orientation must be used throughout. Metric units and SI units should be used wherever possible.
- Some black and white photographs can be reproduced in the *Newsletter* after scanning and digital editing (consult the Editor for advice). Diagrams and figures should be submitted as 'Camera ready' copy, sized to fit on an A4 page, or electronically as TIFF, JPEG or BMP image files. Tables should be in a format suitable for reproduction on a single page.
- Editorial amendments may be suggested and all articles will generally undergo some minor editing to conform to the *Newsletter*.
- Please contact the *Newsletter* Editor if you need help or advice.
- **Advertising:** please contact the editor for current advertising (half and full page) rates.

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**– Editorial –**



Hello everyone,

I figure it is my prerogative as *Newsletter* Editor to be able to publish brag photos of the newest (and possibly youngest) member of the ABS; our new bub, 'Charlotte Ida', modelling her first (of many) bat outfits above. Any mistakes found throughout this edition (and the delay in publication!) can therefore be blamed solely on my lack of 'hands free' time during the day. Thankfully though, I've found that bat field work provides a solid foundation for broken nights of sleep – making nocturnal feeds much easier.

Apart from my world flipping on its head, much activity has also been happening within the Society. A very productive and rewarding Financial AGM was held at Trish and Terry Wimberley's Australian Bat Clinic. The ABS website is getting an upgrade; check out the details in Michael's President's report, and plans for the next ABS conference in Melbourne are underway. The conference will provide an opportunity for election / re-election of ABS position bearers, so if you'd like to get involved (or more involved) in the ABS, contact Michael or one of the other current executive members for details of what different roles entail.

Unfortunately, one of the most notable issues arising since the last *Newsletter* is that of ongoing HeV (Hendra virus) outbreaks in Queensland and New South Wales. Back in July, an additional \$6 million of funding was released for HeV research; allowing investigation into how and why the virus spills over from flying-foxes, how other animals may be exposed and why there was such a spike in cases recently. The ABS wrote to the Joint Taskforce requesting that an expert flying-fox ecologist be involved with this research. You can

see the official requests and responses on pages 44 and 45.

Some shocking news that came through just prior to going to press was that Professor Tom Kunz was hit by a car on October 26<sup>th</sup> while attending the North American Society for Bat Research conference in Toronto, Canada. At the time of writing, Tom was in a critical condition in Boston but recovering slowly. Our thoughts are with Tom, his family and his students and we wish him a full and speedy recovery.



Melbourne's lane-ways are an adventure unto themselves. Caroline Wilson discovered this magical piece of wall art down one such lane way, presumably during a nocturnal sojourn of her own in search for some entertainment.

Thanks to all those who have contributed to the 37<sup>th</sup> edition of the *ABS Newsletter*. I hope you all enjoy perusing these pages. I welcome any feedback on contents, and as always, I readily await contributions for edition 38!

**Susan Campbell – Newsletter Editor.**

Cover: A Queensland Bare-rumped Sheath-tailed Bat *Saccolaimus saccolaimus* on the night of release after rehabilitation showing distinctive pleage and a very placid nature. Photo credit: Sandra Clague.

**– From the President –**

Hello and welcome to another Australasian Bat Society *Newsletter*, so much has happened since the last newsletter in March.

It would be difficult for anybody to have missed the events surrounding this year's Hendra virus outbreaks in New South Wales and Queensland and the associated public attention to bats and disease. The latest information is that 23 horses and one dog were infected with the virus this year, by far the greatest number recorded in a single year to date; thankfully no humans have become ill this year which is good news. Unfortunately the outbreak and associated commentary has done a lot of damage to many years of good work promoting public awareness of bats and bat conservation issues.

There is still a lot unknown about the Hendra virus, we know it naturally occurs in flying-foxes and that it does not appear to cause any ill effects to the bats, and that humans have only ever contracted the virus indirectly through horses. However, it is unknown why there were so many cases in horses this year, or, how it is transmitted from bats to horses. How the virus 'behaves' in the bat population, its prevalence in different species, and the conditions for an outbreak to occur in horses are all largely unknown. The ABS has written to the newly established NSW/QLD Hendra Taskforce encouraging them to work closely with Australia's flying-fox ecologists to undertake sound scientific investigations of the virus and bats based on hypothesis testing and evidence to answer these questions. Without robust science, we are left with speculation and reactive responses neither of which are likely to be good for bats or humans.

At this year's Financial Annual General Meeting we held a workshop entitled 'living with bats' which focused on the intricacies of human- flying fox interactions, particularly when there is conflict. Flying-fox/ human interactions is a complex issue which often generates a lot of emotion and sometimes conflict in the community. The workshop focused on having a frank discussion across the breadth of the issues. I'd like to thank all of the speakers who presented and Trish and Terry Wimberley who hosted us in style, and everybody who attended.

After many years of generous hosting by Charles Sturt Uni (thanks Herry!) we are closing down the old ABS website and launching a new website. The new website is 'blog' style, meaning we have

built it ourselves and can update its contents more readily. As part of the changes we are opening a number of on line forums on the new website, and once these are successfully running we will review the ABS email listserver. Please check it out at [www.ausbats.org.au](http://www.ausbats.org.au). We will continue to add to the site and refine it as we go, so please let us know if you find something that does not work, you have a request, or would like to contribute, photos, news and other items are all welcome.

On that note I'd like encourage members to participate and contribute to the life of the society. The ABS will be holding elections for the executive positions at the next AGM (at the conference in Melbourne). I strongly encourage anybody interested in participating in running of the society to nominate for a role. If you'd like to help but don't have a lot of time to commit, that's fine, we are a volunteer based organisation, and even small things like contributing photos for the website, a story for the newsletter, or even good ideas for the society are always appreciated. If you'd like to help but aren't sure how please feel free to contact me.

Enjoy the newsletter and hope to see you at the conference in Melbourne.

**Michael Pennay**  
**President**



**– Australasian Bat Society Inc.: Business and Reports –**



**AUSTRALASIAN BAT SOCIETY, INC.**

ABN: 75 120 155 626

**Minutes of ABS Financial Annual General Meeting**

**“Narrowleaf”, Australian Bat Clinic, Advancetown, Qld  
2pm Saturday 25th June 2011**

**1. Open attendance and apologies**

Present: Michael Pennay, Chris Grant, Lindy Lumsden, Terry Reardon, Maree Kerr, Nancy Pallin, Peggy Eby, Deb Melville, Kerryn Parry-Jones, Anja Divljan, Trish Wimberley, John Martin, Suzie Lamb, Martin Rhodes, Monika Rhodes, Tanja Straka, Tim Pearson, Nick Edards, Greg Ford, Luke Hogan.

Apologies: David Jackson, Susan Campbell, Craig Grabham, Damian Milne, Alexander Herr, Greg Richards, Marg Turton, Rebecca Jones, Tony Mitchell.

**2. Ratification of Minutes of AGM, 2010**

The minutes of AGM 2010 were published in the *ABS Newsletter*, November 2010.

It was noted that the minutes referred to clause 47.1 rather than 47.3 at the agenda item regarding the amendment of constitution to allow electronic banking.

**Resolution:** (FAGM 2011-1)

Noting this editorial change, the minutes were endorsed as a true record.

Moved: Nancy Pallin                      Seconded: Lindy Lumsden                      Carried

**3. Business arising from minutes**

The president advised that the following items of business arising from the minutes would be addressed in this meeting:

- Update on ABS website upgrade at agenda item 7
- Update and launch of ABS Conservation fund to support bat conservation using the unspent finances of the Society at agenda item 6
- Special resolution to formally pass the amendment of the ABS constitution (Clause 47.3) to allow electronic banking at agenda item 5
- Australasian Bat Night and Year of the Bat update at agenda item 9

The President updated the members on items of business not on the FAGM agenda:

Publication of proceedings of RZS/ABS symposium 2007.

Michael Pennay advised that the ABS had agreed to support the publication by donating \$5,000 to the RZS. It was noted that this was a minor contribution only to the publication, printing and postage costs.

**4. Reports from executive officers**

**4.1 President’s Report – Michael Pennay**

- a) thanked all participants for attending the FAGM, particularly those members who had travelled long distances and the Wimberley’s for their generosity in hosting the meeting.
- b) advised of his activities over the last year.

- official visit as President of the ABS to Taiwan to meet with the Taiwanese bat collegiate and to attend a conference on rabies prevention and control.
- informative, learned much on zoonoses, potential crossovers and risks of transmission of diseases from and to bats.
- noted that ABS should strengthen ties with health workers. Suggested:
  - Lyssavirus working group
  - Hendra working group
  - Noted that infectious disease experts were alarmed that Australian bat workers rarely wore gloves when handling bats. Use of “puncture resistant” latex like Nitrile gloves were recommended for all bat workers. Noted in discussion on President's report that nitrile gloves are relatively comfortable and readily available.
- reported that as required under the constitution the executive had had a number of meetings during the year covering a number of issues, many of which were on the FAGM agenda. Thanked the extended executive, previous executive position holders, for their input.
- development and launch of the Bat Conservation Fund. Advised this would be spoken in more detail later in the meeting.
- Year of the Bat ... ABS is an official partner - 2011 and 2012.
- Bat night (week) part of year of Bat activities.
- ACT grant application for ACT Bat Watch - survey and community education - offered to share proposal - potential to roll out as a pilot/template - Kerry Parry-Jones informed of a previous Bat Watch program she ran in NSW - offered to share information with Michael.
- opportunities of mutual learning between bat carers and bat researchers to share knowledge and understanding of behaviour of bats in the wild to facilitate care of bats in temporary captivity and rehabilitation. Trish Wimberley advised of guide on Microbat Training.

In closing, Michael thanked the Executive and extended executive for their support and work on behalf of ABS during the last year, in particular the Editor for her superb work on the *Newsletter*, Second Vice-President especially for her work towards the 2012 ABS conference and the Membership Officer.

Finally, he thanked the Wimberley's for hosting the FAGM and workshop.

#### **4.2 First Vice President's Report – Chris Grant**

My contribution to the ABS in the last 12 months has been modest. In response to a request from the Executive Committee, I investigated the logistics of holding a workshop and field trip to Gunung Mulu National Park in Bornean Malaysia. The facilities are affordable and excellent and the location easily accessed. The possibility of coinciding a field trip with the SE Asian Bat Conference in Bogor was mooted but not pursued.

As a general comment, I feel the ABS should be continually revisiting its role and purpose, and assess how to better further its objects. As an organisation dedicated to bat research and conservation, we need to assess our roles and responsibilities and learn from our mistakes.

The extinction of the Christmas Island Pipistrelle was a wake up call to us all, and it alarms me that we may be equally as ineffectual at addressing the decline of the critically endangered Southern Bentwing Bat. Our decision making processes need to be streamlined and decisions recorded and revisited to ensure they are acted upon. It seems at times that we are poor at decision-making and poor at implementing decisions. These may be structural issues. Because of the excellence of so many individuals in our organisation there is plenty of energy to be harnessed if we decide to apply ourselves in a more disciplined manner.

Full credit to our executive, with special mention to our hard-working *Newsletter* editor Susan Campbell. The *Newsletter* being the life-blood of the organisation means Susan's tireless efforts to pull together regular issues must be highly commended.



Michael thanked Chris for his work as 1st VP, and hoped that Chris' concerns would be addressed at agenda item 10: Review of performance of the ABS.

#### **4.3 2<sup>nd</sup> Vice President's Report – Lindy Lumsden**

Lindy Lumsden thanked and congratulated Michael in his role as President of ABS.

- Outlined the main role of the 2nd VP to ensure that the biennial ABS conference happened, and reported on progress towards the 2012 conference (later in meeting).
- Outlined other activities such as assisting the Treasurer and Membership Officer with banking, and proof reading, printing and posting the *Newsletter*.

Lindy commended Susan Campbell for her excellent work as *Newsletter* editor.

#### **4.4 Secretary's Report – Maree Kerr**

Maree Kerr apologised that due to personal circumstances during the year she had been unable to give as much to ABS as she had hoped, including development of Australasian Bat Night.

She also commended Michael Pennay's work as President, and Lindy Lumsden as 2nd Vice President and congratulated Susan Campbell for the excellent quality of the *Newsletter*.

She spoke of the need to develop synergy and relationships with other organisations with like aims to further bat conservation in Australasia.

#### **4.5 Treasurer's Report - Craig Grabham**

The apology from the Treasurer was accepted. Lindy Lumsden tabled and spoke to the Treasurer's report.

NOTES:

1. conference income does not include reimbursement for stubby holders - recovered in 2011 FY (\$1287)
2. there was approximately \$580 of conference reimbursements due to late withdrawals / other reasons.
3. there are approximately \$780 of cheques not yet accounted for (need cheque book to allocate to correct cost item), these are currently allocated to conference costs.
4. final amounts for cheque and gift accounts checked against bank statement.
5. statement not yet audited (Note: it has subsequently been audited).

It was advised that under new rules from the Department of Fair Trading for level 2 not for profit organisations, the ABS was no longer required to prepare audited statements. However, an ABS member, Robert Bender, had audited ABS accounts and was happy to continue.

Lindy advised that the report presented to the FAGM was not yet audited but that Craig Grabham, believed it to be a true record.

The report showed that the major sources of income were from membership and the 2010 conference, and that though membership showed a surplus, the conference expenditure was greater than the income received. Major expenditure items were conference costs, newsletter production and merchant fees.

It was advised that the ABS had not yet moved money to a higher interest account.

The high amount of merchant fees was noted and concern was expressed. It was noted that most transactions attracting merchant fees were membership payments and renewals by credit card. It was agreed that ABS should look at ways to minimise charges.

It was noted that Damian Milne had questioned the figures from the ABS 2010 conference as he believed this to have made a small profit, rather than a \$3,000 loss and would like to check figures.



**TREASURERS REPORT FOR THE YEAR ENDING 31 DECEMBER 2010**

	\$	%		
<b>Income</b>		(of income)		
ABS Conference 2010	\$23,099.55	72.8%		
Membership subscription	\$8,464.00	26.7%		y
Interest (Cash Management)	\$179.21	0.6%	<b>Membership</b>	y
Interest (Cheque)	\$0.00	0.0%	Cash inflow	y
Interest (Gift Account)	\$0.12	0.0%	Costs	y
Donations (ABS Gift Fund)	\$0.00	0.0%	Surplus	y
<b>TOTAL INCOME</b>	<b>\$31,742.88</b>	27.2%	<b>Bank accounts</b>	
			Cash inflow	\$179.33
			Cash outflow	\$1,602.99
			Deficit	\$1,423.66
<b>Expenditure</b>			<b>Summary</b>	
ABS Conference 2010	\$26,363.52		Membership	\$8,064.71 100.0%
Membership Management (renewals postage, etc)	\$399.29		Donations	\$0.00 0.0%
Newsletter (production & postage)	\$2,544.20		Newsletter	\$2,544.20 -31.5%
Insurance (public liability)	\$453.75		Insurance	\$453.75 -5.6%
Executive (ie. webpage production, donations etc)	\$48.00		Bank accounts	\$1,423.66 -17.7%
Merchant Fees (Credit Card Facilities)	\$1,398.54		Executive	\$48.00 -0.6%
Bank fees (Cheque)	\$123.45		Net result	\$3,595.10 44.6%
Bank fees (Cash Management)	\$81.00			
Bank fees (Gift)	\$0.00			
<b>TOTAL EXPENDITURE</b>	<b>\$31,411.75</b>			
<b>SURPLUS (DEFICIT)</b>	<b>\$331.13</b>		<b>Surplus comprises</b>	
			Excess of member subs	\$3,595.10
GST Refunded from ATO	\$455.00			
GST Paid to ATO	\$486.00			
<b>ASSETS AT 31 DECEMBER</b>				
	<b>2009</b>	<b>2010</b>	<b>Change</b>	
ABS Cash Management Trust (Investment)	\$7,946.08	\$7,994.29	\$48.21	profit
ABS Cheque Account	\$35,622.49	\$35,773.41	\$150.92	profit
ABS Gift Fund (Donations)	\$1,165.81	\$1,165.91	\$0.10	profit
<b>TOTAL ASSETS</b>	<b>\$44,734.38</b>	<b>\$44,933.61</b>	<b>\$199.23</b>	profit

**Resolution: (FAGM 2011-2)**

Taking the above into consideration, the Treasurers' report was accepted as a true record of the accounts.

Moved: Lindy Lumsden                      Seconded: Greg Ford                      Carried

**Resolution: (FAGM 2011-3)**

That the Treasurer and Membership Officer to consider ways to reduce merchant fees.

Moved: Kerry Parry-Jones                      Seconded: Monika Rhodes                      Carried

**Resolution:** (FAGM 2011-4)

That the Public Officer be authorised to submit the Financial Reports.

Moved: Michael Pennay

Seconded: Chris Grant

Carried

**Actions:**

- *re-check the Treasurers report to iron out any inconsistencies so can be submitted to Department of Fair Trading (due 22 July). (Lindy, Damian and Craig)*
- *A higher interest account to be set up within a month of FAGM 2011 (Craig with assistance of Lindy)*
- *Encourage members to use electronic funds transfer (EFT) for membership fees and renewals (Craig and Damian)*

**4.6 Membership Officer's Report– Damian Milne**

The apology from the Membership Officer was accepted. Michael Pennay tabled the Membership Officer's report and spoke to it.

**Damian Milne**

membership@ausbats.org.au

2010 once again saw an increase in the overall membership of the ABS. There were 306\* members by the end of 2010 which represents the sixth successive year of membership growth (Figure 1). The number of 1 and 2 year un-financial members was up slightly compared to 2009 (Figure 2), as well as compared to most previous years. There were 36 new ABS members in 2010 and 24 retired members who either resigned their membership, or had not paid their membership for more than 2 years.

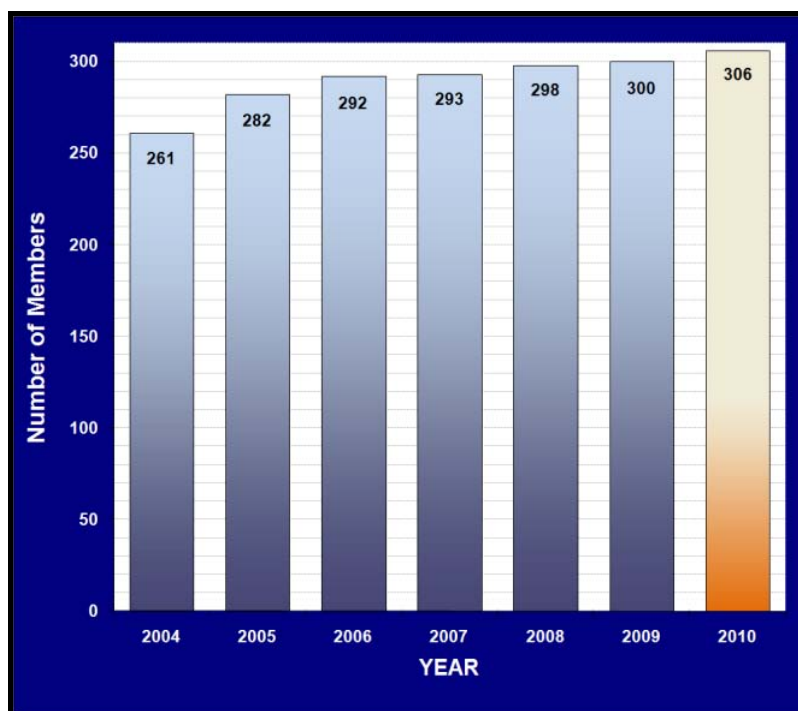


Figure 1. Trend in ABS Membership since 2004.

\* The method used to calculate the total membership has changed slightly compared to previous years. It was decided to exclude 'Exchange' members (6 in total) from the overall count as these are simply other organisations that we swap new publications with, and were not bound by the ABS constitution.

It was noted that there were 241 financial members and 4 life members, excluding "exchange" members.

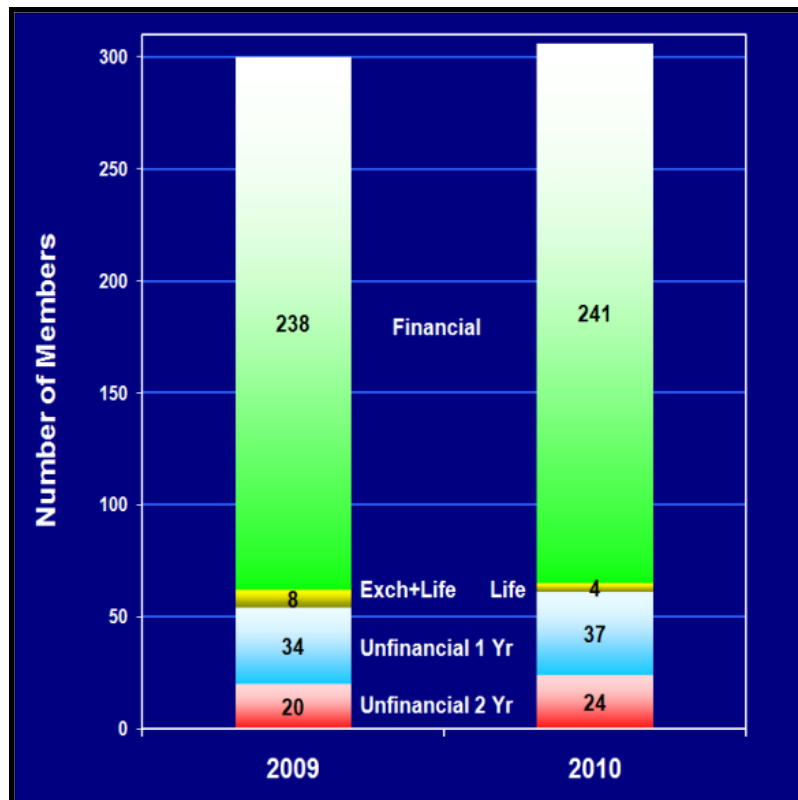


Figure 2. Financial make up of ABS members in the year ending 2010 compared to 2009.

#### 4.7 Editor’s Report - Susan Campbell

The apology from the editor was received and the report tabled.

With the advent of our colour cover, both Titley and Faunatech have expressed interest in on-going advertising within the *Newsletter*, with the inside and back covers booked in advance for future issues.

It would be good to encourage all forms of advertising from different companies, small and large. This could possibly extend to consultants advertising their services within the *Newsletter* – how do the rest of the executive feel about this? I draw the line at the *Newsletter* becoming an avenue for job advertising however, there are other specialist sites (e.g. NRM jobs) that serve this purpose.

Advertising rates for the *Newsletter* are currently:

\$225 – single full page in colour

\$440 – slight discount for 2 colour pages in the same edition

\$150 – full page black and white

\$275 – slight discount for 3 black and white pages in same edition.

Half page rates = halve the above amounts.

I will look to including these rates as a notice to advertisers in all future editions, perhaps in the ‘Instructions to contributors’ page. I currently notify Damian and Craig whenever an invoice is required to be sent to advertisers, but I do not receive any notification that payment has been made. I don’t mind continuing like this, so long as someone is keeping tabs on whether invoices are being paid.

Due to advertising taking precedence on the very back cover, the table of contents has been moved to the front of the *Newsletter*. I’m yet to receive any complaints about this shift, so should be OK to keep doing this in the future.

At some point it would be good to see whether printing the whole *Newsletter* in colour can become a viable option in light of 1) increased revenue from advertising, and 2) fewer members actually receiving print copies [assuming this is the case]. There’s a marked loss of clarity from screen to print page currently, which may or may not be resolved if the *Newsletter* is printed in colour.



Contributions continue to come in close to, and past, the deadlines I set for each edition – but this doesn't really cause too much trouble and ensures that we have good content (eventually!). I am happy to report that I'm still receiving positive feedback from members whenever a new *Newsletter* comes out. This makes me happy and means that I'm willing to stay on in the role for a bit longer!

Susan Campbell  
ABS *Newsletter* Editor.

Michael commended Susan for her work as editor and the quality of the newsletter.

The questions raised by the editor were discussed.

It was agreed that advertising in the newsletter should be encouraged and noted that revenue generated could allow full colour printing of hard copies of the *Newsletter*. It was noted that Susan was unwilling to advertise employment opportunities, but there was general agreement that consultant and PhD opportunities could be advertised, although there was concern that advertising for consultants could be problematic. It was agreed that advertising should be ethical and bat related and that advertising guidelines should be developed. Similar criteria and policies would also apply for exhibitors at ABS conferences.

**Resolution:** (FAGM 2011-5)

That the ABS Executive would develop guidelines for advertising in the *Newsletter* and for exhibitors at ABS conferences, and that these guidelines would include a definition of "advertising".

Moved: Greg Ford

Seconded: Chris Grant

Carried

**Action:**

*Advertising to be put onto the agenda of next Executive meeting and guidelines to be agreed before the next edition of the Newsletter.*

## **5. Special Resolution**

This item was to formally pass the special resolution to amend the ABS constitution following the postal vote. Michael Pennay advised that the postal vote was unanimous in amending clause 47.3 to allow electronic banking and advised that the ABS would submit the changes to the constitution to the Department of Fair Trading.

**Action:**

*ABS to submit amended constitution to Department of Fair Trading.*

## **6. Launch of the Australasian Bat Conservation Fund**

Following a resolution at the 2010 AGM in Darwin, the ABS has developed a funding program to support bat conservation using the unspent finances of the Society.

Over the last year, the ABS executive has been working on guidelines and the application process to ensure accountability of the fund.

The purpose of the Fund is to provide support for activities, projects or research undertaken by members of the ABS that promote the conservation of bats in Australasia.

The funding source is unspent money over the last financial year that has been raised by membership fees, conference profits, interest accrued on money held by the ABS in accounts and other income.

It was agreed that \$1,500 would be available for inaugural bat projects and that the Fund would be launched after the 2011 FAGM to ABS members via email from the Membership Officer and through promotion on the website.

It was noted that one of the conditions was that successful applicants must agree to submit an article to the *ABS Newsletter* about the project and its achievements, and it was agreed that 80% of the project funds would be paid upfront, the final 20% being paid after receipt of the report.

**Actions:**

- *Membership Officer to advise ABS members of the ABS Conservation Fund*
- *ABS to promote the ABS Conservation fund on the website.*

**7. Website report**

Michael advised that Charles Sturt University who currently host the ABS website can no longer do so, and that the executive has discussed the upgrade of the website to a more interactive "blog" type that can be easily edited.

Damian Milne and Michael Pennay are working on the upgrade, as Alexander Herr has stepped down as administrator of the site. Michael thanked Alexander Herr for his management of the administration of the site for many years.

The new website is a Moonfruit platform which has no special editing requirements. The ABS is looking for input from members and requesting members interested in taking responsibility for sections of the website to volunteer.

**8. 2012 ABS conference**

The 2012 ABS conference will be held in Melbourne. Lindy presented an update on progress with the conference organisation.

Rodney van der Ree of University of Melbourne is co-organising the conference, and a conference committee has been set up, comprising the following people: Rodney van der Ree, Lindy Lumsden, Belinda Appleton, Grant Baverstock, Fi Caryl, Lisa Godinho, Rob Gration, Craig Grabham, Steve Griffiths, Tanja Straka and Caroline Wilson.

Melbourne City Council is sponsoring the Welcome function which will be a bowling activity. The conference dinner will be at Melbourne Zoo, with a discount for students.

The committee is investigating holding an open forum on the first day to broaden the conference to other organisations, such as Friends groups, Science teachers, Field Naturalists, Councils, consultants, etc.

A suggested theme was Urban Bat ecology. This had broad support from the floor.

Lindy asked for suggestions for a keynote speaker - they were looking for somebody with an international reputation to open the conference and to speak at the symposium in the afternoon. Costs for the key speaker to attend would be covered from conference revenue and or sponsorship.

The symposium would close with a visit to the flying-fox flyout. Other activities being considered included La Trobe University bat boxes, and the conference would conclude with a 2 day field trip over the weekend. Lindy floated some suggestions for the field trip:

- Yan Yean / Otways
- Healesville Sanctuary Research reserve
- Kinglake looking at impacts and recovery from the 2009 bush fires.

The preferred option from the members present was for the Kinglake option.

Lindy asked what the ABS members wanted from the field trip?

- networking opportunities
- exchange of ideas and new techniques
- interesting activities
- research
- all of above

General opinion was that all of the above were important.

Lindy advised that the registration form would be out by November with the newsletter and that Conference webpage would be set up on the ABS website.

**9. Year of the Bat and Australasian Bat Night**

Review of events, planning and processes

Michael gave an overview and led the discussion. Year of the Bat covers two years 2011 and 2012. ABS is a partner with the International Year of the Bat, Michael asked members to contact the ABS if they had ideas for events or things to celebrate the Year of the Bat. Some ideas he had were:

- ACT Bat Watch funding bid. Michael has applied for a grant with the ACT government for a bat watch project involving community education.
- Online Photo Exhibition to showcase bats, bat issues and bat work targeting an audience that is unfamiliar with bats.

Michael advised - European Year of the Bat coordinators, Eurobats, will send out promotional packages for Year of the Bat events.

Australasian Bat Night will be held over a week around 31st October this year. Events should be registered with the executive and details will be on the website.

## **10. Performance review of the ABS**

Michael advised members that the ABS executive was seeking feedback about how the ABS is performing. He opened discussion on the following broad issues:

- Committee structure: are the meetings working? Do we need a new structure?
- ABS aims – are we meeting them adequately?
- Communicating to members: Newsletter, Facebook, list server.
- Projects: webpage, bat manual, CIP follow-up
- Generating new ideas, directions, projects

Discussion was wide-ranging and considered the following:

- New projects
- Report a bat/ Bat Watch (KPJ)
- Atlas of bats - link on new website to National Wildlife Atlas (being developed) (GF)
- How to vet web reports? accuracy of reports
- Similar to Birds Australia
- Online version of Sue's new book
- Unusual records - expansion of range
- Bat calls
- Susan Campbell interested in any new reports for newsletter
- Potential for a forum discussion/ multiple fora (online - website/ other electronic media)
- Unusual sightings/ records
- Bat detecting forum
- Open up for requests for other fora
- Would have to assign moderators
- First time contributors would need to be vetted first few posts
- After this, contributors could be approved without need for further vetting
- Committee Structure
  - Extending committee (TR) - good to have more formal positions, eg web
  - 2 key roles not on committee
  - Public Relations Officer (spokesperson)
  - Guidelines for communication to broader community
  - Action Officer
  - Number of great ideas generated - not always completed or followed up
  - New input into executive discussions. -
  - Formalise extended committee (currently extended committee consists of past office bearers plus current committee - insight from experience of past office bearers greatly valued)
  - Suggestion to set up Council of Members
  - Members can nominate to be part of Council
  - Sub-contract powers to other people



**Resolutions and Actions from discussion.**

**Resolution** (FAGM 2011-6)

That this meeting recommends the creation of a Whip to ensure that actions are implemented.

Moved Michael Pennay      Seconded Chris Grant      Carried

**Action:**

- *The role of Whip be added to the duties of the First VP.*

**Resolution:** (FAGM 2011-7)

That in order to formalise the Extended Executive, the ABS executive investigate creation of a Council to support the activities of the executive and

- that nomination to the Council be opened to the wider ABS membership
- the size of the Council to be determined by the Executive.

Moved: Kerryn Parry-Jones      Seconded: Debbie Melville      Carried

**Resolution:** (FAGM 2011-8)

That members of the Council be willing to volunteer to undertake tasks as agreed by the Council.

Moved: Kerryn Parry Jones      Seconded: Michael Pennay      Carried

**Action:**

*Executive to place this on the agenda for discussion at the next Executive Meeting*

**Communication**

- Outcomes of Executive meetings discussion to be disseminated to members - on website and in newsletter

**Action:**

*Decisions and Actions from executive meetings be published and disseminated to members and opened to members for contribution, comment and to volunteer for tasks.*

**Advocacy Issues**

- Members expectations
- Need policy/ position statements
- Need a streamlined process of dealing with advocacy issues
- Some issues not clear-cut or too complex and cannot be dealt with by ABS for various reasons - need a structure to deal with these
- need to develop synergy and relationships with other organisations with like aims and to support and work together for bat conservation, particularly for Bat Advocacy issues.

**Action:**

*The executive add advocacy issues to the agenda of its next Executive Meeting.*

**11. Other business**

**Resolution:**

Nancy Pallin moved a vote of acclamation to Michael Pennay as President.

Carried unanimously

**12. Next Meeting**

**AGM** at the 15th ABS Conference, 2012

**13. Close**

The meeting closed at 4.20 pm

## **ABS 2012 Conference in Melbourne**

The 15<sup>th</sup> Australasian Bat Society Conference will be held on Wednesday 11<sup>th</sup> to Friday 13<sup>th</sup> April 2012 at the University of Melbourne, Parkville, Victoria, with a welcoming function on the evening of Tuesday 10<sup>th</sup> April and a post-conference field trip on Saturday 14<sup>th</sup> – Sunday 15<sup>th</sup> April.

The ABS conference is held every two years and celebrates bats (both microbats and megabats), and their role in the ecosystem. This conference will have an urban theme, but we welcome papers on all aspects of bat biology, ecology, health, conservation and management, and advances in bat survey technology. Everyone is invited, including students, bat carers, scientists, land managers, and anyone with an interest in bats and who thinks bats are amazing, fascinating animals!

Registration forms have just been emailed to all members. Early registration is due before 27<sup>th</sup> January 2012, with normal registration and abstracts due by 25<sup>th</sup> February 2012.

The Australasian Bat Society, Inc. Annual General Meeting will be held during the conference.

For further information, refer to our new webpage [www.ausbats.org.au/2012-conference](http://www.ausbats.org.au/2012-conference) or contact:

**Rodney van der Ree**

Phone: (03) 8344 3661

Email: [rvdr@unimelb.edu.au](mailto:rvdr@unimelb.edu.au)

**OR**

**Lindy Lumsden**

Phone: (03) 9450 8694

Email: [Lindy.Lumsden@dse.vic.gov.au](mailto:Lindy.Lumsden@dse.vic.gov.au)

We look forward to seeing you all there. For those of you that haven't been to an ABS Conference before, they are very friendly, welcoming, interesting conferences, so please consider joining us. For those that have been before, I am sure you don't need convincing to come to the next one!



### **Australasian Bat Conservation Fund**

The Australasian Bat Society is pleased to announce that it has recently launched the Australasian Bat Conservation Fund. The Australasian Bat Conservation Fund is available to provide support for activities, projects or research, undertaken by members of the Australasian Bat Society that promote the conservation of bats in Australasia.

Grants of up to \$500 are available for individual projects and is now open to applications. Please see below for further information and how to apply.

Any member with a proposal that promotes bat conservation is encouraged to apply. The fund is not limited to research projects or students but may include educational programs, on ground activities or other bat related activities.

We look forward to receiving your applications.

ABS Executive.



## **Australasian Bat Conservation Fund Principles**

### ***Purpose of the fund***

The Australasian Bat Conservation Fund is to provide support, for activities, projects or research undertaken by members of the Australasian Bat Society Inc. that promote the conservation of bats in Australasia.

### ***Source of funds***

The Australasian Bat Conservation Fund will be funded by money raised by membership fees, conference profits, interest accrued on money held by the ABS in accounts and other income.

### ***Annual funding amounts***

The amount of funds available each year to support bat conservation projects will be determined by the amount of money unspent from the previous financial year (1 Jan - 31 Dec for the ABS). That is, the amount of money generated by the ABS through membership fees, interest and donations (unless provided for a specific purpose) or other means that remains unspent (or allocated to be spent) at the end of the financial year. Up to, but no more than 100% of this money can be spent by the Australasian Bat Conservation Fund in the following year.

### ***Funding amounts for individual projects***

Grants of up to \$500 Australian dollars are available for individual projects.

### ***Eligibility***

**Who:** Any member of the Australasian Bat Society Inc. can apply for a grant from the Australasian Bat Conservation Fund.

### ***Activities funded***

The Australasian Bat Conservation Fund is open to applications for any proposal that:

- Improves or promotes the conservation of bats and their habitat in Australasia;
- Raises positive public awareness of bats in Australasia;
- Undertakes scientific research that contributes to bat conservation in the Australasia;
- Supports the role that wildlife carer and rehabilitation organisations play in bat conservation in Australasia.

*Projects may include (but not limited to):*

- Scientific research, student projects, on ground bat conservation work, education programs or materials, equipment or materials purchased to support bat conservation programs or projects.

### ***Activities not funded:***

The ABS is interested in supporting a very broad range of projects. However, funding is unlikely to be available for the following purposes:

- conference travel, attendance at meetings, or other short-term activities mainly involving travel where these are the principal elements of the grant proposal;
- activities which are properly the responsibility of other funding bodies or other government agencies;



- recurrent funding of existing projects;
- a project in which the conservation of Australasian bats component is incidental to its main aims;
- payment of salaries, wages etc.

**Where:**

The Australasian Bat Conservation Fund is only available for projects undertaken in the Australasian region. That is the islands east of 'Wallace's Line' including; Australia, New Zealand, New Guinea, and the islands of the south-west Pacific.

**How:**

Members must submit an application proposal outlining the project's objectives, methodology, timeline, budget details and contribution to bat conservation (see the following proposal guidelines). All applications will be assessed by the ABS executive on merit of how well the project matches our objectives, its viability and expected conservation improvements, the project's potential to receive funding from other sources, and how the project compares with other funding proposals. Only applications determined by the ABS executive to be suitable for funding will be eligible to receive funding.

**Applications**

**Timing:** Applications can be submitted at any time of the year. Members will be notified if the fund is fully committed for the year.

**Assessment of applications:** Applications will be assessed by the ABS executive (including the extended executive). At times if needed, the ABS may call on additional experts to assist in determining a project application.

**Notification:** Applicants will be notified of the success or otherwise within 6-8 weeks of receipt of the application. Sometimes the ABS may need to contact applicants to gather more information to assist us assessing the application. ABS members will be notified during the year if the funding for that year is exhausted.

**Payment of funding**

Successful applicants will be required to sign an assistance agreement that describes the ABS's commitment to your project and asks you, in turn, to agree to meet the conditions of assistance (set out below). The assistance agreement must be signed and returned to the ABS in order to receive funding.

On receipt of the assistance the successful applicant will receive 80% of the total amount granted. The final 20% will be paid on receipt of the article to the Australasian Bat Society *Newsletter* regarding the project (see conditions of assistance below).

**Conditions of assistance**

To receive assistance successful applicants must agree to;

- Submit an article to the Australasian Bat Society *Newsletter* about the project and its achievements.
- Supply the ABS with a written final report, photographs or other evidence documenting your achievements, and samples of any materials produced as a result of your project.
- Acknowledge the support of the ABS in publications or public presentations etc. about the project.
- The results of ABS funded work being made freely available wherever possible.
- Indicate that they have obtained (or will obtain) the necessary permits to carry out the project.
- Any specimens which may be collected as a result of support by the fund must be offered to an approved public zoological collection.



## **Australasian Bat Conservation Fund Project Proposal Application Guidelines**

Please ensure you read and understand the most recent version of the Australasian Bat Conservation Fund principles before preparing your application.

Applications should be prepared in electronic format (e.g. Microsoft Word, PDF, or equivalent). Please ensure your application is concise and to the point, proposals should not be more than four pages long (min font size 12).

So that we can assess your project proposal, please ensure it includes the following information.

1. Your name, address, date of birth and details of any relevant qualifications/ skills/ experience.
2. The names of any other people who will be working with you on the project and details of their involvement (i.e. co-partner, supervisor, assistant etc.).
3. Project title.
4. Where will the project take place?
5. Brief description of the project, stating: aims and justification, methods, including project design (if applicable), if any progress has already been made to date, and expected completion date.
6. The significance of the project to the conservation of Australasian bats.
7. How much funding are you seeking? Maximum \$500 available.
8. If your project involves live bats, do you have, or are you intending to obtain all necessary permits? *The awarding of the grant will be contingent on receiving the required permits.*
9. How will the grant be spent if successful? *Please provide specific details.*
10. Details of all other sources of funding for the project.
11. Names and contact details of two referees who can comment on your project and your ability.
12. A brief CV including any relevant publications, qualifications.
13. A statement that you will agree to meet the conditions of assistance.
14. Your signature and date of submission.

Please submit your application via email titled "Australasian Bat Conservation Fund application" to: The President, Australasian Bat Society [president@ausbats.org.au](mailto:president@ausbats.org.au)



**– Research Notes –**



Fig. 1: Zac the male *Saccolaimus saccolaimus* rescued from near Cairns. Photo credit: Helen Douglas

**Live report of the critically endangered Bare-rumped Sheath-tail Bat (*Saccolaimus saccolaimus*) in north Queensland, Australia.**

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In Australia, occurrence of the Bare-rumped Sheath-tail Bat (*Saccolaimus saccolaimus*) is considered extra-limital (Flannery 1995) to a very widespread distribution from India to the Solomon Islands (Koopman 1984). Until recently, very few records of this species have existed in Australia since it is an open air, above canopy forager, tree dwelling, and confined to the northern tropical regions of Queensland and the Northern Territory (Churchill 2008). In the Northern Territory, within the last five years the number of records has increased significantly due to the discovery of a roost in a fallen tree near Darwin (2006), and a genetic re-assessment of a number specimens previously mistaken for *S. flaviventris* (Milne *et al.* 2009).

In Queensland, the last confirmed report of a living *S. saccolaimus* was 1981 from a coastal region southeast of Townsville (Compton and Johnson 1983). Since then, the only confirmed record in Queensland comes from a dead individual collected on Magnetic Island in 2000 (Queensland Museum JM13938). Unconfirmed sightings have been reported at Iron Range (Murphy 2002) and on Prince of Wales Island in the Torres Strait (Coles pers. comm. cited in Schulz and Thomson 2007).

As a consequence of its apparent rarity, destruction of preferred habitat and restricted range, and by applying IUCN conservation criteria, *S. saccolaimus* was nominated as critically endangered in the Bat Action Plan (Coles *et al.* 1999). Subsequently it has been listed nationally under the *Environment Protection and Biodiversity Conservation Act 1999* as critically endangered and listed as endangered in Queensland in the Nature Conservation (Wildlife) Regulation 2006. A national recovery plan for the species has been developed (Schulz and Thomson 2007).

It is significant that an adult male *S. saccolaimus* was found alive in Queensland, just north of Cairns in July 2011. This individual was injured and taken into care for rehabilitation. Dorsally, it had very dark reddish brown back fur with distinctive irregular small white patches and flecking (see Cover photo, and Fig. 1). Milne *et al.* (2009) considered white flecks in the fur as a diagnostic characteristic to separate *S. saccolaimus* from *S. flaviventris*, this is supported by the appearance of the specimen described here. Ventrally, the fur was not highly contrasted to the dorsum but was a lighter brown, displaying some flecking. A gular pouch was present but not a radio-metacarpal pouch. Forearm length was 73.4 mm and weight 51 g (post recovery), so both of these measurements are within the recognised range (Churchill 2008). The opportunity to examine closely and photograph this live individual has emphasised the stark contrast in pelage between the Queensland and Northern Territory populations which are disjunct geographically but very similar genetically (Milne *et al.* 2009). In the Northern Territory, *S. saccolaimus* has very dark brown, almost black dorsal fur usually with few lighter flecks, whilst the ventral fur is almost white (Milne *et al.* 2009). Thus *S. saccolaimus* can be easily confused with *S. flaviventris* in the Northern Territory but the species appears to be easily identified in Queensland based on its external appearance.

The male *S. saccolaimus* was discovered in a kangaroo enclosure at Hartley's Creek Crocodile Adventures at Wangetti Beach, north of Cairns. This occurred mid-afternoon on 24th July 2011 when a tourist drew the staff's attention to a bat on the ground (Fiona McGrath pers. comm.). It was collected from the enclosure and arrived bleeding, dehydrated and suffering from shock at BatReach education, rescue and rehabilitation centre (<http://www.batreach.com>) in Kuranda, Queensland. An examination by experienced wildlife carer, Pam Tully, revealed a deep penetrating wound to the left side of the head between the eye and ear. The size and depth of the wound makes it a suspected a talon strike from a bird of prey.

The injury site was cleaned with saline and any infection managed with an oral antibiotic (Enrofloxacin) and a topical antibiotic eye ointment (Chloramphenicol). The bat drank water from a shallow spoon when it was offered. Once the injury had healed a slight tethering of the eyelid remained, making the left eye appear slightly smaller. Vision is well developed in these emballonurid bats, so tests were conducted by presenting food items (mealworms) within the peripheral vision of each eye. Pleasingly the bat turned and grabbed dead or live 'prey' equally well on both left and right side.

The injured bat was kept in captivity for a period of 27 days, where it was fed successfully, and gained some weight. In captivity, flight was encouraged and was successful despite these animals being adapted to flying in large open spaces. The bat was able to land and take off on its own, suggesting that it would recover from injury and be suitable for release. Subsequently the bat was returned to the site where it was found and released after dusk without incident. Inspection of this area of coastal eucalypt woodland, revealed a large number of tree hollows that could be utilised as roosts for this species. The area is a short walk from a sea cave where the Coastal Sheathtail Bat *Taphozous australis* is known to roost and it is highly likely that these two species fly and forage in the same habitat.

**Acknowledgements** – Staff of Hartley's Creek Crocodile Adventures especially Dan, Fiona and Trent; Volunteers of BatReach and Far North Queensland Wildlife Rescue.

Photograph Credits - Helen Douglas (Fig.1) and Sandy Clague (Cover photo)

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## Going batty across the north

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Fig. 1: Gould's Wattled Bat *Chalinolobus gouldii*, Piccaninny Plains sanctuary, Cape York Peninsula, 18 August 2011. Photo credit Gina Barnett.

## Introduction

The Australian Wildlife Conservancy is non-profit NGO that aims to conserve Australian wildlife and its habitat through purchase of land and subsequent science-based land management. As part of the science team responsible for the ecological inventory monitoring in Queensland, I cover a lot of ground, and consequently get to see some interesting bats (but never get enough time for batting!). So far this year we have harp-trapped at Bowra Sanctuary in south-west QLD, Pungalina-Seven Emu Sanctuary in the Gulf of Carpentaria, Piccaninny Plains Sanctuary on Cape York Peninsula and Brooklyn Sanctuary north of Mareeba. All have provided amazing bat highlights, and a couple of surprises.



### **Bowra**

Roger Coles assisted us with a comprehensive bat survey in October 2010 at Bowra and we followed it up with further harp trapping in April 2011. A wide range of species were captured or observed, including *Chalinolobus gouldii*, *C. picatus*, *Nyctophilus geoffroyi*, *Scotorepens greyii*, *Scotorepens* sp., *Vespadelus baverstocki*, *Saccolaimus flaviventris* and *Tadarida australis*. Sadly no sign of the elusive *Chalinolobus dwyeri* though.

### **Pungalina-Seven Emu**

Cool temperatures (5°C overnight) at Pungalina in June meant that conditions weren't ideal;

however Pungalina has some fantastic cave systems including a Ghost Bat (*Macroderma gigas*) maternity roost. Some of you may remember me asking for assistance to census these....we're still working on that! The caves also provide roosts for *Rhinonictoris aurantia* and *Hipposideros ater*. This year we were also lucky enough to record *Saccolaimus flaviventris*, *Chaerophon jobensis*, *Nyctophilus daedalus*, *Nyctophilus walkeri*, *Chalinolobus nigrogriseus* and *Tadarida australis*. Next job – find some of those mangrove specialists without being eaten by a croc!



Fig. 2. Large footed myotis *Myotis macropus*, Piccaninny Plains sanctuary, Cape York Peninsula, 14 August 2011. Photo credit Gina Barnett. [Ed: Some tissue samples from this population of *Myotis macropus* would be wonderful for comparison to south eastern Australia.]

### **Piccaninny Plains**

This sanctuary is situated smack in the middle of the cape between Iron Range and Weipa and as such we didn't expect either of our surprise visitors to show up. First was a *Pipistrellus westralis*, captured in harp trap around the homestead, followed by *Chalinolobus gouldii*, which was tangled in cobwebs while feeding inside the shed at the homestead. I enlisted the help of a visiting carpenter/rock climber to climb up and net it with a hand net! We also regularly capture *Pipistrellus adamsi*, *Nyctophilus bifax*, *Nyctophilus geoffroyi*, *Hipposideros cervinus*, *Rhinolophus megaphyllus*, *Rhinolophus robertsi*, *Myotis macropus*, *Scotorepens sanborni* and *Chalinolobus nigrogriseus*.

### **Brooklyn**

A night of bat trapping on Mt Lewis confirmed for us that the rainforest specialists are doing well up there, with captures of *Macroglossus minimus*, *Hipposideros diadema* and *Phoniscus papuensis*. We also captured masses of *Miniopterus australis*, *Nyctophilus bifax*, *Rhinolophus megaphyllus* and *Scotorepens greyii* in woodland near the Mitchell River adjacent to Mt Alto.

I suspect that some of our more far flung records are a result of lack of trapping effort rather than paucity of bats, so hopefully we can continue to increase the knowledge base of bats in some north Australia's more remote areas.



Fig. 3 (above). Ghost bat *Macroderma gigas* in a maternity colony on Pungalina sanctuary, Gulf of Carpentaria, June 2011.

Fig. 4 (below) *Scotorepens sanborni*, Picanniny Plains sanctuary, Cape York Peninsula, 13 August 2011. Photo credits Gina Barnet.







Fig. 5. *Pipistrellus westralis*, Piccaninny Plains Sanctuary, Cape York, 4 August 2011. Photo credit Gina Barnett.



## Bat girls vs. the Papua New Guinea Jungle: an adventure story.

Tamara Inkster<sup>1</sup> and April Reside<sup>2</sup>

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Furthering Tamara's PhD work on altitudinal distributions of microbats (liklik blakbokis, pes no gut) in tropical rainforests, we set forth into the jungles of PNG to conduct microbat surveys within the YUS conservation area (see ABS Newsletter Vol. 34, p 20). Armed with little more than Anabats, harp traps, mist nets, a GPS, and a bag of taro, we were dumped by a small plane in the mountain village of Sapmanga in the Huon Peninsula, north-eastern PNG highlands. Within minutes we negotiated in Tok Pisin for carriers to help cart our cargo into the forest, and we were off, slipping our way up and down a muddy track.

We climbed from around 800 m elevation to 1400 m on the first day, stopping only to take in the view of the magnificent waterfall. We stayed our first night in the village of Gormdan, where April convinced a local to help her find her first Kumul, the Emperor Bird of Paradise (*Paradisaea guilielmi*), and we were treated to our first (of many) meals of taro stew.

The next day we climbed upslope for four hours to our first field camp (2350 m elevation). Despite its lovely vista, this camp proved to be typical of high elevations – bat depauperate. In spite of our best efforts, the mist nets and harp traps remained empty. So, after four wet, unsuccessful nights we descended to our next camp (2050 m elevation).

Much to our delight, we quickly added four species to our capture list (see species list below). We were slightly disappointed however, when we discovered the first species to be caught on the trip was the Eastern Horseshoe Bat (*Rhinolophus megaphyllus*) – the most frequently encountered species from Tam's field sites back home in the Wet Tropics!



L-R: Tamara, Johah and April ready to set out.

Even more disappointing was the fact that the nets seemed to provide an excess of the dreaded Common Blossom Bat (*Syconycteris australis*) – the “raskols” of the Papua New Guinean bat world. Tam declared that April, as volunteer (i.e. field lackey), should extract all (aptnly named) Syco’s from the nets from that point forward.

Despite the slow start we quickly added new species to the list, including a species unique to PNG, the Papuan Big Eared Bat (*Nyctophilus microtis*). Previously only recorded from sea level to 1400 m (according to THE guide to PNG bats by Bonaccorso) this find is also a potential range extension. The forest around the camp provided other delights such as our first view of a cuscus for the trip, exciting net by-catch such as the Mountain Owlet and the Feline Owlet Nightjars (*Aegotheles albertisi* and *Aegotheles insignis* respectively), and a stream big enough to wash in, complete with bamboo spout!



April with the magnificent Green Tube Nosed Bat (*Paranyctimene raptor*)

Whilst at this site we were alerted to the presence of a karst system of sinkholes about an hour’s walk from camp which we guessed was worth a visit. Our trusty local field assistants, armed with

slingshot and bush knives, went ahead to protect us from raskols. Walking around the sink holes was treacherous and we feared we might fall through to the centre of the earth at any moment. Nevertheless, we survived intact and returned triumphant with some Anabat recordings. When taking a “short cut” (it took just as long due to the impossibly steep angle!) back to camp we stumbled upon the bower of the Macgregor’s Bowerbird. Although he wasn’t home, we admired his beautiful display of orange and white seeds and fungus. All in all, our second site proved much more successful than the first and after a few more nights of taro stew we were ready to proceed to the next camp.

Unfortunately, local politics prevented us from following our original transect down the mountain. Eventually, after a few hair-pulling episodes on Tam’s behalf, an alternative route down to the coast was found. After an arduous 9 hour trek in the pouring rain we arrived at the new 1550 m camp well ahead of our cargo (4 days ahead of most of it actually!). With a meagre dinner of two biscuits with peanut butter (not taro!), supplied by a sympathetic dung beetle researcher at the new camp, we treated ourselves to an early night. With our food not arriving for another 4 days, we survived on meagre rations of plantains and sweet potato (kaukau). Luckily, we had the foresight to make sure the Anabats and mist nets were carried with us, so it was work as usual.

As if to make up for the fact that half of our cargo was lost in the jungle, the forest pulled out all the stops and provided us with the New Guinea Horseshoe Bat (*Rhinolophus euryotis*) and a new genus for us both; the Green Tube Nosed Bbat (*Paranyctimene raptor*). *Paranyctimene raptor* is a superb bat with bright green wings, amber eyes (complete with green eyeshadow!) and big yellow spots. Tam declared it ultimately superior to the ubiquitous and noisy *S. australis* that we seemed to be catching by the multitudes. We were also spoilt with magnificent views of the Long Fingered Triok (*Dactylopsila palpator*) scampering up tree trunks about our nets. Happily, our missing cargo finally arrived (Yay, food!)... just in time for our move to the next camp!

We were two weeks in by this stage, 10 kg lighter, and covered in enough leech, scrub itch, and miscellaneous insect bites to look like chicken pox sufferers. With over 800 languages still spoken in PNG, each move found us learning new local civilities/pleasantries, along with the all-important words for “bat” (Liklik blakbokis, Dam tom tom, De mut mut, etc...). Also, we were now



essentially forging our own path so new base camps had to be set up with each new elevational jump. This posed a few problems. For a place often so wet, water was becoming increasingly hard to come by. Our friendly neighbourhood entomologist mused that this was because the Huon Peninsula is considered to be the youngest mountain range in the world, and as a result soils are still so soft water is absorbed as quickly as it falls! This meant water was to be used for critical things such as drinking and cooking only, and we were forced to abandon bathing completely (luckily we didn't have to share a tent!).

Our 1150 m field site saw a huge boom in capture numbers; providing almost half of all the bats caught for the trip in just a few short nights spent at this elevation. Although the numbers were high we only add two new species, one of which was the Fawn Leaf Nosed Bat (*Hipposideros cervinus*). The other, we were ecstatic to discover was the Flores Murine Bat (*Murina florium*). We caught this little delight in the bottom shelf of one of our mist nets, and she was flying so close to the ground that she was almost dangling on it from the net! Sadly, our

capture rate dropped off again once we moved down to our 750 m field site adding only 24 individuals in four nights, and no new species.

Arriving at our next and final camp (250 m) and moving into our last week of the trip we almost slipped into holiday mode. The camp was situated a short 5 minute climb down to the Sabo River where we took advantage of its crystal clear, fast flowing water, and shady bank every day by bathing, swimming, and even mist netting. We were treated to wonderful fresh garden produce like pumpkins and coconuts, and spoiled with what seemed like an endless supply of pawpaw and 'mau' (sweet) bananas. We were also happy to meet up with friends and colleagues when we arrived (Tam's supervisors 'swanned' in to the 'holiday' camp, on flat ground, having left us to do the hard yards – they were forgiven when we discovered they had brought us chocolate!). This site was great for diversity and as well as seeing many different bird species (Papuan Hornbill *Rhyticeros plicatus* and the Papuan Hanging Parrot (*Loriculus aurantiifrons* to name a few)) and even a few snakes, we also added four new bat species in only four nights!



Above: Diadem Leaf Nosed Bat (*Hipposideros diadema*). Photo credit April Reside.



Below: Trident Leaf Nosed Bat (*Aselliscus tricuspoidatus*). Photo credit April Reside.



The Fly River Woolly Bat (*Kerivoula muscina*) came first, followed by the always spectacular Diadem Horseshoe Bat (*Hipposideros diadema*). A second species of *Hipposideros*, which we hadn't caught previously, proved more of a challenge to identify when we couldn't get the key to work out quite right. A wing biopsy was taken in the end and we hope to resolve the identification dilemma soon. Our last night of field work ended with the very impressive Trident Leaf Nosed Bat (*Aselliscus tricuspoidatus*), a new genus for the both of us, and one of the most amazing noses we have ever seen! Tam was delighted to end the trip with such a special bat. This was short lived however when we awoke in the morning to the horrible sounds of one last Syco, caught in a harp trap.

With our field work over we made the final trek to the coastal village of Singorokai, from which we would take a boat ride to the city of Madang, before flying home. In true Papua New Guinea fashion our five hour boat ride out turned into a 12 hour ordeal because of motor and fuel problems, and we arrived at the hotel in Madang thoroughly exhausted but happy to be on dry land again. It was with some reluctance (but mostly happiness at the thought of being properly clean again) that we returned home the next day, April

to finish her own PhD on the other flying vertebrates (savannah birds), and Tam to process our hard earned data. Although sometimes hard, stressful, dirty, and culinary bland, batting in PNG is an experience we'll never forget.

With over 19,000 Anabat files having been collected during the trip, analysis is still in the very early stages. Although we managed to collect reference calls from 10 different species, they are still many more species that we don't have reference calls for. Any help with identifying other species calls that members of the ABS community are willing to provide would be greatly appreciated. If you can help please contact [tamara.inkster@my.jcu.edu.au](mailto:tamara.inkster@my.jcu.edu.au).

Species List (\* Denotes endemic species)

- Common Tube Nosed Bat (*Nyctimene albiventer*)
- Green Tube Nosed Bat (*Paranyctimene raptor*)
- Least Blossom Bat (*Macroglossus minimus*)
- Common Blossom Bat (*Syconycteris australis*)
- Trident Leaf Nosed Bat (*Aselliscus tricuspoidatus*)
- Fawn Leaf Nosed Bat (*Hipposideros cervinus*)

- Diadem Leaf Nosed Bat (*Hipposideros diadema*)
- Unidentifiable *Hipposideros* (possibly *calcaratus* or *maggietaylorae*) \*
- New Guinea Horseshoe Bat (*Rhinolophus euryotis*)
- Eastern Horseshoe Bat (*Rhinolophus megaphyllus*)
- Mountain Pipistrelle (*Pipistrellus collinus*)
- Flores Murine Bat (*Murina florium*)
- Papuan Big Eared Bat (*Nyctophilus microtis*) \*
- Fly River Woolly Bat (*Kerivoula muscina*) \*



## **The successful reintroduction of a juvenile *Chalinolobus morio* to a tree cavity dwelling maternity colony.**

**Lisa Cawthen**

[lcawthen@utas.edu.au](mailto:lcawthen@utas.edu.au)

In January 2011 in south-east Tasmania, a team of volunteers and I were radio-tracking Chocolate Wattled Bats *Chalinolobus morio* to their day-time roosts. At the bottom of one roost, we discovered a juvenile (photo opposite at top). Lucky to escape being trampled on or eaten by nearby birds, we were left with the predicament of what to do with this juvenile. Let nature take its course or give this juvenile a helping hand? The juvenile appeared in good health and with no means to care for the bat in the field and no nearby bat carers to call, we decided to attempt to reintroduce the juvenile to the colony (which we could see high up in the cavity).

We placed the juvenile as high into the cavity (circled in photo at right) as we could hoping it would either a) climb up into the cavity, or b) a female would come to collect it. The juvenile climbed part way into the cavity and stopped. As we watched at dusk for bats to emerge, the juvenile could be heard on the Anabat calling.

Approximately 10 minutes pre-emergence, we observed a bat swoop down from the roost and then back into the roost and the juvenile was gone (hopefully back with its mother).

That night we counted more than 340 individuals emerging from this roost (it then became too dark to continue counting).



Photos: Above, the juvenile *Chalinolobus morio* discovered at the base of a day roost that contained > 340 individuals (circled above). Photo credits: Lisa Cawthen.

## **Bat exclusion from Cottles Bridge house.**

**Robert Bender**

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In February 2011, I received a request to help exclude bats from a house roof in Cottles Bridge, on Melbourne's northern urban-rural fringe. A visit to the house showed it is on a hilltop above a steep slope covered with tall thick-barked eucalypts. The bats were inside the pitched roof which runs parallel to a sloping timber ceiling



leaving a space of about 7 cm across its entire length.

At sunset, we watched as approximately 70 bats exited via a small gap in the roof-capping. There were droppings beneath the eaves around the corner from the window wall and the small space between the two beams seemed to be another entry and exit point. Several bats had died of heat and dehydration during the previous summer's heat wave (Fig. 2). The dead bats appeared to be Gould's Wattled Bats.



Fig. 2. Dead Gould's Wattled Bats that had expired within a roof cavity.

I had a friend build four boxes, similar in design to those used at Organ Pipes National Park (Figs. 3 and 4). One member of the family helped me install the boxes, steadying the ladder on the very steep slope below the house. We found four trees fairly clear of clutter and the boxes were bolted to trees at about six meters above ground. Some droppings collected at Organ Pipes National Park were put into the boxes to help persuade bats into the boxes.



Fig. 3 (below left) and 4 (below). Bat boxes erected nearby to colony of Gould's Wattled Bats being excluded from a suburban roof.



On 13<sup>th</sup> October I returned, with Tanja Straka, Caroline Wilson and Jo Saich (Fig. 5) to inspect the boxes and complete the exclusion from the roof. The boxes are numbered M1 to M4. All of the boxes had been all used recently by bats as there was sign of fresh droppings (as well as the occasional Huntsman spider!).



Fig. 5. Tanya, Caroline and Jo with bat detectors awaiting dusk emergence.

After a very nice dinner, we sat outside with two bat detectors and watched the bats emerge. We counted 61 emerge from the roof capping and another 11 from beneath the eaves. Call frequencies were recorded on the Anabat

detectors. When about 10 minutes had elapsed after the last bat emergence, an extension ladder was placed against the roof barge boards, and an exclusion flap attached to the roof capping which had a diameter of about 2 cm. A small sheet of clear plastic was attached with duct tape so it would remain in place but be unable to flip over the roof and expose the entry point (Fig. 6). Another dead Gould's Wattled Bat was extracted from inside the lower end of the fascia board.



Fig. 6. Exclusion of the bats from the main entry point in the roof capping.

The project at this point seems to have been very successful, with full co-operation from the Marantelli family. The four boxes are all being used by the bats, and the exclusion flap was only put in place after the entire colony had exited for the night.

There is an opportunity here for anyone interested in a local monitoring project, to check the condition of the boxes and the seasonal pattern of their use by bats. With a colony of 70 bats now evicted from the house roof, if all of them use the boxes, they will soon become overcrowded so extra boxes will be needed. There is a possibility that over time, other bat species will also start to use the boxes. The project could develop in several directions. If anyone is interested, please contact me at [rbender@netlink.com.au](mailto:rbender@netlink.com.au)

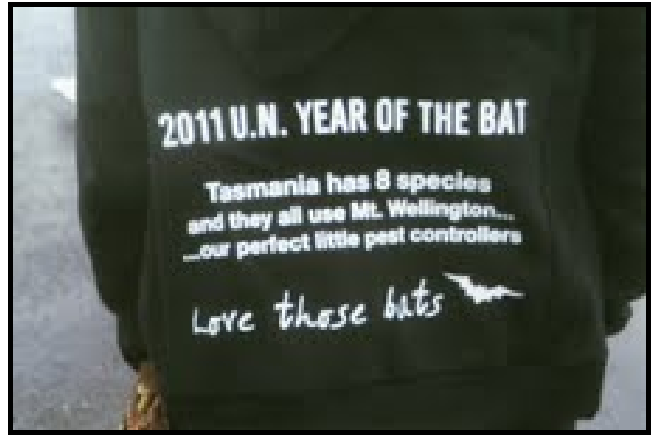


More snaps from the ABS FAGM  
Above, Deb Melville and Nancy Pallin enjoying some nosh.  
Below, Terry and Lindy discuss whether size really does matter (with regards to microbats, of course!)  
Bottom, a Little Red Flying-fox whispering sweet nothings into the attentive ear of Chris Grant.





– Reports, Viewpoints –



Bat woman walking for a cause. Cathy Dorling fashioning the Tasmanian Year of the Bat outfit which reads; "2011 U.N. Year of the Bat. Tasmania has 8 species and they all use Mt Wellington...our perfect little pest controllers. *Love those bats*".

## Year of the bat reaches peak in Tassie

Cathy Dorling

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The ABS Conference and field trip in the NT may seem like a long time ago and for many of you bat-pros just another in a long line of bat-related gatherings, but for me it was one of those utterly inspiring and mind-awakening experiences which will stay with me forever (along with child-birth and seeing Eric Clapton perform live...but not simultaneously of course!). I came away determined to keep the bat fire burning but not being involved with bats professionally or academically – only emotionally – I was all pumped up with nowhere to go.

So after getting rabies shots, ordering a Baton bat detector and finding a local batty spot to haunt at every opportunity I was a bit flummoxed. What next. Then Lisa Cawthen mentioned that 2011 was going to be the Year of the Bat. This seemed like a good opportunity to try doing a bit of PR for bats, particularly our Tasmanian ones. And it was November 2010 so why not make an early start.

There is a race in Hobart in November every year called the Point To Pinnacle which involves runners and walkers starting off at Wrest Point Casino (sea level) and finishing 21.4 km later at the summit of Mt Wellington (1240 m above sea level) within an allotted time. I'd done it a couple of times before (walking not running I hasten to add) and was looking for motivation to do it

again. So I bought some bat ears and wings and, with kind permission from our Mr Pennay, had a logo put on the back of my Darwin Conference t-shirt which said:

2011 U.N. Year Of The Bat  
Tasmania has 8 species  
and they all use Mt. Wellington...  
...our perfect little pest controllers  
Love those bats

It was a fairly lonely business as the only other bat fan I know in Tassie is Lisa who was out in the field, and strangely none of my friends could be persuaded to head into town for 7 o'clock on a Sunday morning to cheer me on. So it was a bit nerve-racking and I must confess that although I did take the wings with me on the day I actually ditched them at the last minute. This was due to a number of occupational health and safety considerations and...oh okay, cowardice. However, I wore the ears and shirt with pride and was quite gobsmacked at how many positive comments I got from other walkers. I could hear people behind me reading it out loud and chatting about it and early on in the race a bloke came and caught me up specifically to ask me all about bats, having read the shirt. He was a local and didn't realise that there were bats around Mt Wellington or that Tassie had so many different species. He wanted to know all about them and how to spot them. He was really keen to get his kids interested too. Then later on I happened to pass him and he called me over to talk to his wife who was a vet and also very interested. They even wanted to know how to get hold of a simple bat detector so I told them about the Baton.



There was quite a bit of interest at a couple of the drink stations too. As I approached one the lady in charge called out "Are there any other Bat Society members?" and some of the young volunteers at another one started arguing over who was going to hand water to the "Bat lady". But what really amazed me was some of the runners thundering past towards the end saying "Go Bat Girl". I mean how they could string three words together is beyond me. By that stage I was having trouble just breathing and staying vertical.

So all in all it felt like quite a successful exercise – a tiny drop in the ocean perhaps, compared to many of the other activities going on for the cause in Australia and beyond, but at least it got a few people thinking and talking which is a start at least. And incidentally, teams of walkers in costume often get their photo in the paper as well as a possible prize, so if there are any hill walkers out there who'd be keen to come to Hobart in November 2012, dress up as bats and walk up a mountain quite fast let me know. I'm game if you are...

Lisa Cawthen ([lcawthen@gmail.com](mailto:lcawthen@gmail.com)) would also like to send out a congratulations to the Friend's school in southern Tasmania who have incorporated a bat walk and talk into their year 9 camps. Hopefully, if the rains stop, Lisa and Cathy will use their newly purchased 'Batons' to monitor bats at their camp site at Far South.



## **Tandayapa Bird Lodge attracts microbats.**

**Brett Taylor**

*Senior Ecologist, Biodiversity Assessment and Management, Cleveland, QLD 4163*

[brett@biodiversity.tv](mailto:brett@biodiversity.tv)

I recently had the pleasure of spending three months in Ecuador which for the most part was spent chasing animals. Of this I worked as a volunteer for six weeks at Tandayapa Bird Lodge located about 90 minutes north-west of Quito on the western slope of the Andes at about 1700 m altitude. During the day the hummingbird feeders were busy with hummingbirds, particularly in the late afternoon when the feeders were crowded and the action intense. However the nightshift moves in after dark. I was quite surprised (or perhaps a bit ignorant) to find microbats using the hummingbird feeders (photos below). There seemed to be at least two different species coming and going. My 'research' suggested there could be a number of species possible. Does anyone have any suggestions?





Check out that tongue! This page and previous, a microbat making the most of a hummingbird feeder at Tandayapa Bird Lodge, Ecuador. The nectar cylinder in the centre of the feeder is approximately 10-11 cm in diameter, which makes the red feeder part about 20-22 cm. This might help members with identifying the species. Terry Reardon's best guesses are *Anoura* sp.? (perhaps *geoffroyi*, *fistulata*, *caudifer*?).



## Report from the 2<sup>nd</sup> South East Asian Bat Conference, Bogor, Indonesia, 6-9<sup>th</sup> June 2011

Kyle Armstrong<sup>1</sup> and Greg Richards<sup>2</sup>

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The organisers of the 2nd SEABAT conference hosted an excellent conference in June. It was hosted by LIPI, Indonesian Institute of Science, with the venue at the Royal Hotel in Bogor, Indonesia. The conference was very well attended by students and researchers from around the region, as far as the UK and Pakistan to the west, and the USA to the east. As always at bat conferences, the atmosphere was extremely friendly, supportive and open.

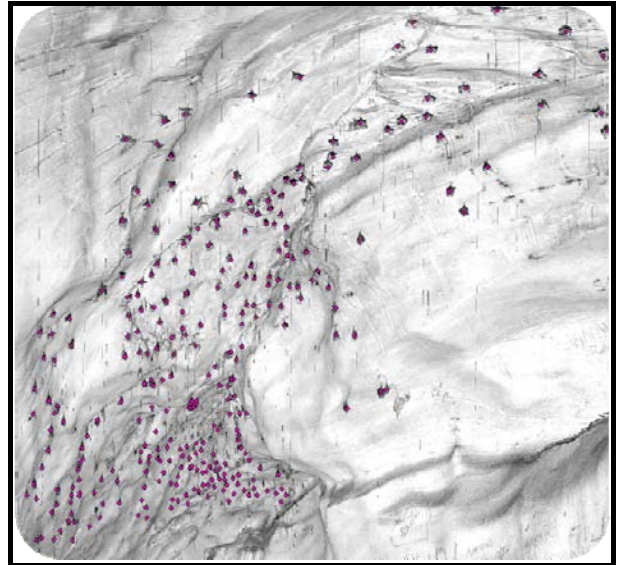


Several members of the Australasian Bat Society got together to cover the registration and accommodation fees of four students: Fauziah Syamsi (Andalas University, Indonesia), Pushpa Raj Acharya (Prince of Songkla University, Thailand), Tatag Bagus (Yogyakarta State University, Indonesia) and Edi Dwi Atmaya (Universitas Gajah Mada Pemuda Pecinta Alam Gunungkidul, Indonesia). These students all gave great presentations, and the conference was enriched by their attendance.

For the best overall paper (*Systematics and echolocation of rhinolophoid bats in Vietnam*) Vu Dinh Thong, from Vietnam, won a new Anabat detector donated by Titley Scientific, and when a PDA display was added to the prize the main donor followed up with a GPS. This equipment will certainly receive much use, especially since of the 121 species recorded from Vietnam, one-third are rhinolophids. The judging for the best student paper was incredibly difficult. Four papers were tied for first prize, which indicates the amazing quality of research that is coming out of this region by very dynamic and dedicated people. By a whisker, Suzanna Noor Azmy from the Faculty of Biosciences and Bioengineering at the Universiti Teknologi Malaysia, won the prize for the best student paper which was two Aussie bat books. Her paper (*Application of terrestrial laser scanner to bat population surveys in caves*) was quite amazing. These laser systems are used for measuring buildings, ruins, forensic scenarios etc but she used one in a cave and could not only count bats, but also identify many of the species in residence. In the image at right she was able to work out that these bats were *Hipposideros larvatus*, and that there were 229 individuals in the colony. The laser imagery also provided the actual shape of the cave, which looked like a huge translucent potato! and scalable sectors as other views.

The financial support from members of the ABS was recognised with a certificate from the organisers. Thanks to absolutely everyone who helped organise and attended the conference.

*Ed: Greg would like members to know that he has Suzanna's power-point presentation on the cave laser scanning available to share if anyone would like a copy.*



Laser image of a cave containing 229 *Hipposideros larvatus* bats taken by Suzanna Noor Azmy as part of her prize winning paper.



## **The Bat Human Project**

**Nancy Pallin**

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On the evening of 29 April 2011, the ArtLab team presented the *The Bat-Human Project event*: a free, fun, educational family and community site specific art event at Cook and Phillip Park, Sydney, 5-8 pm.

The event showcased the creative content and outcomes of the Sydney Artlab project which aimed to generate a deeper understanding of the flying-foxes in Sydney and their role within the natural and human environments. The two videos on the ArtLab website are definitely worth viewing. You will even discover how street trees might be pollinated in the future and how messages can move around the city.

Rain all day and competing events resulted in the audience being mostly committed flying-fox supporters plus people who happened to be moving through the park. These were intrigued by live flying-foxes from Australian Wildlife Walkabout Park at Calga handed by Tim Pearson and Cary Kuiper. Wonderful images of flying-foxes and recorded interviews people were projected on a big screen. Children joined in to hang like a bat and have their faces painted. Speakers including Dr Peggy Eby, John Martin the Wildlife Officer at the Royal Botanic Gardens



Sydney, Professor Deborah Bird Rose and Urban Planner Tom Rivard put their points of view. Umbrellas shielded the speakers and microphone. Peter Noble sang his bat rap song to an enthusiastic audience that could not keep still.

Keith Armstrong and the ArtLab team are to be congratulated for challenging attitudes to bats and encouraging discussion of how humans and wildlife can co-exist. Cities are now woodlands for foraging flying-foxes since humans have removed or displaced them from so much of their natural habitats. It is time to plan for a future of co-existence. I am not sure that flying-foxes would actually be willing to have a camp at Barangaroo but all ideas need to be explored.

*Ed: You can view video documentation of the Bat Human Event online. There are two ways to access the footage: through the Remnant Artlab Vimeo Video Library:*  
<http://vimeo.com/29341700>

Or through the following link:

<http://www.remnantartlab.com/the-bat-human-event/>



FAGM photos (courtesy of Michael Pennay). Above: Trish Wemberly cooking up a storm to feed the hords, while below Peggy Eby, Vivien Jones and Moni Rhodes sort their priorities out over a glass of wine.



**– Gadgets, Techniques and Photos –**

**Is Anabat dead?  
The changing bat-detecting  
landscape in Australia.**

Terry Reardon  
[terry.reardon@samuseum.sa.gov.au](mailto:terry.reardon@samuseum.sa.gov.au)

Like several others I have recently tried out the SM2-Bat detector (Wildlife Acoustics), mainly because present indications are that this is really the first time another detector has looked like making significant inroads into the Anabat dominated Australian market. This detector records calls both in full spectrum (viewable as .wav files) as well as AnalookW-compatible files, AND it only costs ~ \$1000. The imminent arrival of two more detectors; Wildlife Acoustics' EM3 (see ad inside back cover of this edition) and the Kriscomp Nanobat (last newsletter) – both of which are expected to come in under half the cost of an Anabat SD2 and both with AnalookW-compatible file saving options, raises the question: why now buy an Anabat SD2 at \$2200?

I think bat detecting practice in Australia is about to undergo a big change, and while competition and new technologies are to be welcomed, the transition will present us with some interesting choices and some practical challenges.

This article is not a detailed comparative technical review of detectors and software, although this needs to be undertaken in the Australian context as new detectors and software arrive on the market. Instead I present a contemplation on how the new systems might change the bat detecting landscape in Australia and discuss what the implications might be in practical terms, i.e., the transition from zero-crossing to full-spectrum call analysis, the task of re-accumulation of reference calls and the economics (cost and time) of surveys.

A few things first: 1. I should state up front that I have no commercial allegiance to any particular detector company; 2. In discussing bat detector systems, it is important to emphasize that there are two components; the hardware (detectors, recorders, microphones, storage media) and the viewing and analytical software; 3. For convenience the following abbreviations are used; FS = full spectrum; ZCA = zero crossing analysis; ZC = zero crossing; FD = frequency

division; Anabat system = Anabat detectors plus AnalookW software; WA = Wildlife Acoustics; Titley = Titley Scientific; SM2 = SM2 bat detector.

***The dominant system in Australia***

Various brands of divide-by, heterodyne, time expansion and full-spectrum bat detectors have been around for as long as Anabat detectors and while a few workers have favoured FS recorders and many of us have tested out a variety of detectors, most Australian bat workers and consultants have overwhelmingly chosen to use Anabat detectors and the associated software, making it the dominant system here. The Anabat system is used widely in the USA and probably to less extent in Europe/Asia (I don't know what the sales figures are). The system has been successful in Australia partly because both the hardware and software are excellent, and partly because it is Australian in its origin: many of us personally know its developer, Chris Corben and have followed the development of the system through its various iterations, beginning with David Titley's company. In addition, there have been, and are, great advantages in having a single system, e.g., there is now a large body of reference calls recorded by Anabat detectors, several keys have been published for Anabat based calls and there is a broad base of expertise in analysing and identifying ZC calls. Also, there is ready support from a locally based company and from colleagues for resolving technical and identification issues. A uniform detecting system also allows for some level of comparability between studies.

There are disadvantages of course: people get use to a system and are often reluctant to change even in the face of newer systems having potentially superior performance. Australian bat biologists generally recognise the limitations of the Anabat system but until recently, there hasn't been a strong incentive for them to seriously consider alternative detectors. There is also the disincentive for a company that has a virtual monopoly with their product, to look to reduce retail costs or examine more lateral innovations.

As mentioned, the Anabat system is excellent, and there has been a steady evolution in hardware development (new detector models although still ZCA-based, and call storage) and incremental upgrades with the analysis software. The ability to hook up to handheld PDAs to see live calls has been a particularly innovative step.



Anabat detectors have really been the impetus for Australian bat surveys to shift from capture methods to remote methods.

### **Typical use of detectors and Anabat**

Probably most bat detecting work now undertaken in Australia is conducted as part of larger projects using passive recording, e.g. for wind farm impact studies, and for replicated ecological projects and general bat surveys. There are also several projects using permanently placed detectors. As a result, large data sets are being generated (some sets are massive) requiring considerable time to analyse.

The Anabat system has served us well in the past – it is versatile in that the detectors are easily used for passive and active deployment, file saving and downloading are very efficient in time and computer space, especially when dealing with very large projects. Viewing files is straightforward in AnalookW and high number of files can be examined very quickly. Though not as widely used as they should be, the Filters and Scan options in AnalookW are extremely useful for pre-sorting or identifying files especially across whole projects (folders, and subfolders).

For example during our Cape York survey, we used up to ten detectors set every night for 28 nights, yielding 89,000 files (this data set of 1.7GB if recorded as full spectrum files would have been about 1TB of data). The Scan option in AnalookW took <20 minutes to automatically identify each of the 8 CF-calling bat species in the whole dataset in a single batch run. If you manually scanned the dataset at 1 file a second, it would take 25 hours – the filters and scans took about 1.5 hours to design and write.

The number of detectors used in surveys and studies has often been limited because of the unit cost of the Anabat detectors; a persistent criticism of the Anabat system has been the high cost of the hardware. The arrival of cheaper detectors will surely lead to even more detectors being deployed for projects and substantially more data generated. If the claims of the new detectors are true and they are more sensitive, then even more files per detector will be accumulated. The efficiency of processing recorded files and analysis will become an important feature to consider when deciding which system/s to invest in.

It is clear from talking to colleagues and consultants who have invested in, or are working with calls from SM2 detectors, that they are

analysing the ZC files only. The same informants also suggest that most of the call analysis is done manually, that is visually identifying each call from its shape and parameters seen on the AnalookW screen. I will discuss call analysis later, but for now, my feeling is that in the foreseeable future, investors in SM2, EM3, Nanobat and any other new dual file saving optioned detectors that come onto the market, are likely to use them initially as ZCA detectors. Perhaps this is slightly ironic that full spectrum detectors should be used in their ZCA option, but I think it is testament to the simplicity of ZCA and the utility of AnalookW software.

Thus AnalookW looks to have a future even if the Anabat detector doesn't. However, until now, AnalookW has been provided free. I would think it likely that Chris Corben/Titley might charge for new versions or even rights to use the AnalookW format. Potentially AnalookW might disappear from the market. Indeed it is feasible that entirely new software will become available for analysing ZC calls.

### **Call analysis**

So you are considering your detector options ... do I stay with Anabat or do I look at the options? I am not in a position to recommend hardware, but I think for the foreseeable future, it is highly likely that Australians will preferentially look at detectors which have the option to save in AnalookW formats. If you choose detectors with the option to save in AnalookW compatible files as well as FS, then there are some things for you to consider.

### **ZCA**

Opponents of the Anabat system are critical of the detector (partly because of the characteristics of the transducer) but mainly because of the loss of information because of its use of ZCA. ZCA essentially reduces complex wave forms to a series of dots, e.g. say about 30 dots for a single echolocation pulse. The process of reducing a full signal to files for ZCA means that low level signals can be lost because the call strength has to exceed a certain threshold. Also the amplitude of the signal is lost and only the loudest signal at any instant is recognised. The frequency versus time graphs seen on an AnalookW window cannot show harmonic structure of signals at any instant, and shows no relative amplitude of frequencies through time.

AnalookW can extract a number of key measures of a pulse property and these can be used for identification through metric analysis (either

within AnalookW, or other statistical programs e.g. from Discriminant Function Analysis through to more complex process such as Neural Networks).

There is no doubt that FS files have far more information available and potentially superior identification performance. The advantages of ZCA are that the files are quick to save, they require very small computer memory and therefore faster to interrogate with filters and scans. Essentially the FS versus ZCA comes down to quality versus quantity.

However there is potential for ZCA files to differ from different detectors. The dots shown in an AnalookW file are derived from the original signal via electronic and software processing and different processes are used by the different manufacturers. Moreover, different transducers (microphones) and associated filtering and amplification also have a large effect on the final appearance of the AnalookW files. To put it another way, if it were possible to line up the different detectors to record the same bat call, the final files from each may look very different, especially for some parameters e.g., maximum frequency, slopes etc. This may mean that filters or scans, or individual parameters developed say on Anabat derived reference calls, may be inappropriate for sorting or identifying calls derived from an SM2, EM3 and Nanobat. This might also be true for AnaScheme users (AnaScheme is an excellent but not widely distributed automated identification software program developed by Matt Gibson).

So it is important to be aware that interpretation of results between studies over time or between sites when different detector brands have been used to generate ZC files, may not be straightforward.

### **Full spectrum analysis**

The great advantage in having dual saving optioned detectors is the ability to conduct direct comparisons between calls in ZCA and FS analysis. The new detectors appear to save the FS and ZCA files with the same name (different file extension), making comparisons very easy.

Having recorded full spectrum calls, you then have options for viewing them. Freeware such as the beta version of Audacity is great for viewing files as waveforms, as spectra and for FFT analysis. It is very slow and tedious to load and view calls, and hopeless if you wanted to scan hundreds or thousands of files. Several people

use Adobe Audition (formerly Cool Edit) but this is expensive and again slow for viewing large file numbers.

There are several bat-specific programs for viewing and analysing FS calls and these may include auto identification as inclusions or additions. These programs cost, e.g. Sonobat is \$300 for the basic program and \$1500 for automated identification version; WA's SongScope retails for \$500 (see links at the end). Again I can't recommend any particular software, and it seems there isn't a lot of experience in Australia using full-spectrum analysis of bat calls, especially for automated identification.

Currently there are some hurdles in full spectrum analysis. There are no publically available or published reference call libraries in FS for Australian bats. There are some individual researchers who have reference calls for some regions but these haven't been published or shared. Collecting reference calls is a very large task and needs to be undertaken across many geographic regions and will likely take years.

My experience with the SM2 bat is that it is a much more clumsy system for recording reference calls probably because it was primarily designed to be a passive detector. The EM3 and Nanobat look to be more user friendly for active recording and for recording reference calls. Both have screens to see bat calls in real time (Nanobat in colour!!). Of course there are many other detectors available for full spectrum recording (Pettersson, EcoObs, Binary Acoustic Technologies and more).

There will be a learning period too, especially extracting features unique to FS that discriminate species. The Sonobat website has a great explanation of features that can be delineated in FS but not ZCA.

Another major disadvantage is that analysing calls in FS is a lot more laborious than for ZCA, and especially for big runs – even for automated identification, runs may take days compared to hours in AnalookW. The training of automated call programs will also require considerable investment in time.

Saving full-spectrum files is also time-consuming – a full night of calls recorded with an Anabat detector is saved to CF card immediately and only takes a few minutes to download to AnalookW readable files. In FS, this process may take several hours. All up, there is a large

time cost to FS call analysis, and this may impact upon the cost of research and consultancies, especially since, as mentioned earlier, there is propensity for more calls to be recorded.

### **Where to now?**

Clearly I think the ZC plus FS file saving function of the new detectors make them attractive to Australian bat researchers, in fact probably irresistible at ~\$1000 or less. So the immediate battle ground will be for hardware. If there is a price war among the new detectors (and even at \$1000) chances are that consultants or researchers will jettison Anabats and swap over, quickly making Anabat detectors redundant (unless Titley responds with their own dual system detector or drop the price of an SD2 by over a half). This may result in a lot of second-hand Anabats coming onto the market.

Both the Nanobat and EM3 look like wonderful detectors, I am looking forward to seeing them both on the market and comparing their features. I have had a play with a test Nanobat and it is an impressive detector with a remarkable range of options (including a cheaper ZCA-only version which will be firmware upgradable to FS, and call-activated recording for passive recording) and I have been impressed by the Coles brothers intent to produce a high quality detector and make it user friendly. WA also advertises that they listen and respond to feedback; the clumsy SM2 Bat is apparently having a hardware and software upgrade next year. I am impressed by the fact that WA gives quick and informative responses to email enquiries. I did make an attempt to borrow and try out an EM3 but without success, so I can't tell you about it first-hand.

If people take up the new detectors, then we will see a huge increase in files being recorded and

this will be challenging. I think people will continue to use ZCA analysis and it likely that the new detectors will be used for that purpose for some time until full spectrum reference call libraries are compiled (and shared) and people become confident with the analytical software. People may also hybridise their call analyses, i.e. conduct a quick scan using ZCA for the straightforward species, and then invoke FS for the trickier ones.

The increase in the number of files recorded will demand improvements in the processing efficiency and speed for identification, so I expect a quick evolution in analysis software for FS calls.

Also, a likely welcomed outcome of having more detectors (because they are cheaper) is that ecological projects can have simultaneous replicates rather than compromised temporal replicates.

In some ways it is sad to see the end of a stable system that has served us relatively well. But in my view, progress in call analysis has almost been stagnant in Australia for years and the new technologies may be the kick-start we need to revitalise interest.

I am sure this is just the beginning of the technological race, e.g. the international iBat project uses Tranquillity time expansion detectors to record calls straight into i-phones which can be downloaded to a bank and identified. We are in for some interesting times.

### **Website links:**

<http://www.sonobat.com/index.html>

<http://www.wildlifeacoustics.com/products/analysis-software>

<http://www.ibats.org.uk/>



Left: Changes have certainly taken place to the bat detecting landscape since this photo was taken. Damian Milne, Chris Grant, Tony Mitchell, Nathalia Velez and Marieke Lettinik, 2001 Point Stewart, Kakadu; in search of *Taphozous kapalgensis*.

**– News and Announcements –**

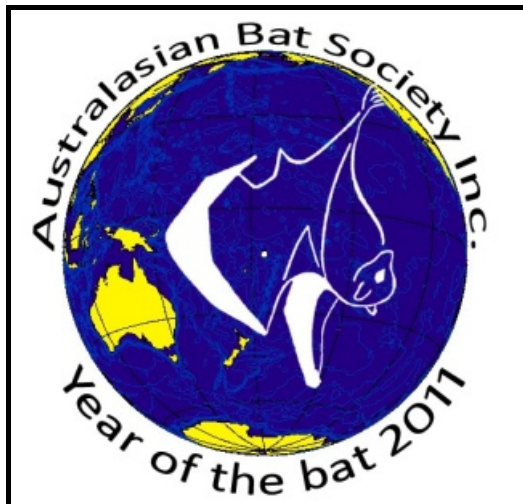
**“Bats = Biodiversity”**

If you have some friends or work mates you would like to give the “Bats = Biodiversity” stickers to, then please contact the membership officer Damian Milne at [membership@ausbats.org.au](mailto:membership@ausbats.org.au). No charge for up to 10 stickers and then 30 cents each if you want more than 10.



**Australasian bat night  
– get inspired!**

**Saturday 3rd and Sunday 4th March 2012**



The first Australasian Bat Night will be held on the weekend of 3-4th March 2012 which is the culmination of Bat Week (Saturday 24th February till Sunday 4th March 2012).

ABS is asking its members to register events and activities during this week so we can promote a Bat Calendar.

Please send details of your event to Maree Kerr at [secretary@ausbats.org.au](mailto:secretary@ausbats.org.au) outlining:

- Name of activity
- Where
- When (date and time)
- Short description
- Target audience (e.g. family event, over 18, under 12)
- Cost if any
- RSVP contact

If you have local media contacts please let me know. Television, radio or newspaper coverage can raise interest in your Bat Night event, while increasing public awareness in your community for bat conservation.

Looking for ideas to celebrate Bat Night?

Into sports?! Why not organize a sporting event, like a “Bike for Bats” or a “Midnight Bat Run” right around the time bats fly?

If you live near a landscape where bat colonies are frequently spied in the twilight skies, a local Evening Bat Walk could be just the ticket. Expert bat conservationist advice and the right location may mean you have the makings for an exotic Eco-Bat Tour. You can also organize a bat shaped cookie baking session or bake sale at your kindergarten or school! Or try a fun hour of finger painting with a bat-tastic theme. Family or group activities such as planting trees to benefit both bats and forests, is a good opportunity to spend the day in a stimulating environment of informal learning. Or ask your local hardware store and or bat group, to sponsor a family bat box-building day at a nearby zoo or public park.



**iPhone app**

Greg Ford notified the list-server back in June of a new iPhone app that encroaches on the echolocation recording world:

<http://news.discovery.com/tech/batphone-app-records-ultrasonic-bat-sounds-110624.html#mkcpgn=rssnws1>

Roger Jones in the UK alerted us to a couple more ‘i-bat’ links:

<http://www.bats.org.uk/pages/ibatsprogram.html>  
<http://www.zsl.org/science/news/batphone.833.NS.html>



**Bats seeing blood**

Thanks to Moni Rhodes for bringing the following article to our attention:

<http://www.abc.net.au/science/articles/2011/08/04/3283712.htm>



Check it out for a report on how scientists from the University of California have worked out how vampire bats *Desmodus rotundus* zoom in on the blood supply of their prey in the dark. Using infrared sensors on their face and a unique protein, the bats can feed on blood from large animals including cows, horses, sheep, pigs and humans.



## **Bats and plant lures**

Marg Turton discovered another interesting article on how scientists in Germany have shown that a rainforest vine in Cuba has flowers that are uniquely conspicuous to echolocating nectar feeding bats. Check the full story out at:

<http://www.ft.com/intl/cms/s/2/163487a8-bd81-11e0-89fb-00144feabdc0.html#axzz1UH1RmMz8>



## **Year of the Bat photo competition**

The Year of the Bat Photo Contest is currently open for submissions and we need your help!

Support us by spreading the word about the competition through passing on the information to anyone you know who would find it of interest. If possible, please also publicize this contest through your outreach channels.

Interested participants can read everything there is to know about terms and conditions, as well as how to sign up here:

<http://www.yearofthebat.org/get-involved/photo-contest/>

We appreciate your continuous support and look forward to a fun and successful competition!

Best regards,

The Year of the Bat team

Ms. Rishad Rahman

Year of the Bat Campaign Assistant

UNEP/EUROBATS

Hermann-Ehlers-Str. 10

53115 Bonn, Germany

Email: [rrahman@eurobats.org](mailto:rrahman@eurobats.org)

Web: [www.yearofthebat.org](http://www.yearofthebat.org)

[www.facebook.com/yearofthebat](http://www.facebook.com/yearofthebat)

[www.eurobats.org](http://www.eurobats.org)

## **WNS impacts**

Greg Ford was alerted to the following information on the impact of white-nose syndrome on bats via the Bat Conservation and Management group on LinkedIn:

Natural Resources subcommittee hearing on white-nose syndrome

*"Why We Should Care About Bats: Devastating Impact White-Nose Syndrome is Having on One of Nature's Best Pest Controllers"*

Nina Fascione, Executive Director of Bat Conservation International, based in Austin Texas, noted that researchers are predicting the Northeast regional extinction of the little brown bat, North America's most common bat species, "in as little as 16 years." She also noted that the lost of bat species would lead to farmers using more pesticides, which is both an economic burden to them and an environmental hazard. She predicted farmers could see the impacts in as little as four to five years. She also noted the impacts of increased listing of bat species for protection under the Endangered Species Act would have regulatory impacts on "mining, defense, energy, forestry, construction, transportation, tourism and outdoor recreation."



## **Fruit bat biologists meeting at NZ Conference**

I am coordinating a meeting for fruit bat biologists attending the International Congress for Conservation Biology Symposia in Auckland, New Zealand in early December 2011. I am hoping that you could help me notify Australian biologists about this meeting possibly through the Australian Bat Society?

The Conservation Biology symposia are typically very busy with numerous concurrent sessions and thousands of participants. I am hoping to create a venue for fruit bat biologists to get together and to discuss regional conservation concerns and priorities and make suggestions for updating the IUCN's Old World Fruit Bat Conservation Action Plan (original was compiled by Mickleburgh et al. 1992).

Our success is going to depend heavily on how successfully we can get the word out to fruit bat biologists who will be attending the conference. If

you could post a notice on the Australian Bat Society website and/or circulate a message to your members, I would be very grateful.

**The fruit bat meeting will be held Tuesday, December 6, 5:30-6:30 pm in Epsom 1/2 Room at the SkyCity Convention Center in Auckland, New Zealand, which is the same venue for the International Conservation Biology symposia.**

Please feel free to include my contact information: Tammy Mildenstein ([tammy.mildenstein@gmail.com](mailto:tammy.mildenstein@gmail.com)) I will be happy to entertain questions about the meeting, suggestions for the meeting agenda, and/or advice how to reach potential participants.

Tammy Mildenstein  
PhD Candidate,  
Wildlife Biology, University of Montana

Revising co-editor,  
IUCN Old World Fruit Bat Action Plan

Member,  
IUCN Bat Specialist Group, Southeast Asia Bat Conservation Research Unit, Mariana fruit bat Recovery Team



## **ABS letter to the Hendra Virus Taskforce**

As Michael outlined in his President's report, the ABS wrote to the newly established NSW/QLD Hendra Taskforce encouraging them to work closely with Australia's flying-fox ecologists to undertake sound scientific investigations of the virus and bats based on hypothesis testing and evidence to answer these questions.

The ABS letter, and the reply received from the Taskforce, are included in the following pages.



**AUSTRALASIAN BAT SOCIETY INC.**

PO Box 481  
LINDFIELD  
NSW 2070

ABN: 75 120 155 626

26<sup>th</sup> July 2011

Dr Ian Roth,  
NSW Chief Veterinary Officer

Dr Hume Field,  
Principal Veterinary Epidemiologist  
Biosecurity Queensland

Dear Dr Field and Dr Roth,

The Australasian Bat Society is a non-profit organisation; our membership consists of bat scientists, professional ecologists, land managers, students, wildlife carers and others. Our members are concerned about capability of the Hendra Task force to carry out its work if it does not formally engage leading flying fox ecologists and behaviourists in both the strategic and practical aspects of studying this disease.

We are concerned that since the first emergence Hendra virus infections in 1994, the expertise of leading Australian flying fox ecologists and behaviourists has not been fully utilised in the assessment and interpretation of spillover events and in the design of scientific methods to examine what role flying-foxes may have played in the disease cycle.

We strongly encourage you during the formation of the new Task Force to recognise the scope of expertise to analyse and interpret this disease should expand to beyond veterinarians, epidemiologists and virologists, and to include the best experts in the field of flying fox ecology.

A highly qualified flying fox ecologist would be able to advise the Task Force on the many aspects of flying fox biology and ecology such as feeding habits and food resources, movements and lifecycle which may be critical to better understanding Hendra spillovers and to advise better precautions against further infections. We also respectfully ask that flying fox ecologists be formally invited to participate in strategic planning and in practical assessments of the Task Force.

Regards  
Michael Pennay  
President, Australasian Bat Society Inc.  
president@ausbats.org.au



**Queensland  
Government**

Reference: 06944/11

Department of  
**Employment, Economic  
Development and Innovation**

6 OCT 2011

Mr Michael Pennay  
President  
Australasian Bat Society Inc  
PO Box 481  
**Lindfield NSW 2070**

Dear Mr Pennay

**Engaging flying fox ecologists in the work of the Hendra Virus Taskforce**

I refer to your letter to Dr Ian Roth and Dr Hume Field of 26 July 2011 advising of the contribution that the expertise of flying fox ecologist and behaviourists can make to the Intergovernmental Government Hendra Virus Taskforce. As Chair of the Taskforce, your letter has been forwarded to me for reply.

The Taskforce was established on 11 July 2011 to ensure the efforts in managing Hendra virus are coordinated across government agencies with responsibility for biosecurity, health and environment sciences. Given this objective membership of the Taskforce is limited to government agencies at this stage.

Nevertheless, the Taskforce recognises the knowledge and expertise flying fox ecologists have to offer in matters relating to Hendra virus and seeks to engage with key stakeholder groups in undertaking its work. To that end, I will be in contact to invite you to present your perspective to a future Taskforce meeting and to discuss matters of mutual interest.

The Taskforce has committed to adoption of a 'One Health' approach that includes collaborations across the biosecurity, health and environmental sciences. Investigating researchers in both Queensland and New South Wales have worked with leading bat ecologists to assist in the profiling of properties at which Hendra virus spilled over to horses.

If you require any further information regarding this matter, please do not hesitate to contact Dr Janine Barrett on telephone 07 3239 3233 or email [janine.barrett@deedi.qld.gov.au](mailto:janine.barrett@deedi.qld.gov.au).

Yours sincerely

A handwritten signature in black ink, appearing to read 'Kareena Arthy'.

Kareena Arthy  
**Managing Director  
Biosecurity Queensland**





## BCI Student Research Scholarships for 2012

More than 1,200 species of bats account for about 20 percent of the world's mammal species. Bats play critical roles in maintaining healthy ecosystems and many human economies. They are primary predators of night-flying insects, including many agricultural pests. Bats pollinate countless plants and disperse seeds that help restore cleared rainforests. Yet bats are also among the least studied and most misunderstood of creatures. Victims of centuries of myths and misinformation, they are in decline almost everywhere. Protecting bats requires understanding and explaining their benefits and needs. Knowledge is the key to conservation.

Since 1990, Bat Conservation International has addressed this lack of knowledge by supporting student research projects around the world through its Student Research Scholarships. We have awarded a total of \$790,420 to help 310 students conduct research relevant to bat conservation in 60 countries.

Each year, BCI awards 12 to 20 scholarships of up to \$5,000 each. Projects should be focused on the roles bats play in providing ecosystem services (pollination, seed dispersal, pest control, maintenance of biodiversity) and/or on habitat requirements, including impacts of climate change, that are critical to conservation.

BCI scholarships are competitive and proposals will be evaluated by a distinguished international panel of reviewers. The deadline for applications is December 15, 2011. For more information or to apply, visit BCI's website at: [www.batcon.org/scholarships](http://www.batcon.org/scholarships).

### Examples of Recent BCI Scholarships

**Lynne Burns, Dalhousie University (Canada).** Structure and movements of bat populations among swarming sites: developing microsatellite genetic markers.

**Rodrigo Marciente, Instituto Nacional de Pesquisas da Amazônia (Brazil).** Effects of understory vegetation on bat assemblage and guild structure.

**Jennifer Krauel, University of Tennessee (U.S.)** Fall migration of Mexican free-tailed bats and their insect-pest prey.

**Ryszard Oleksy, University of Bristol (Madagascar).** Contribution of fruit bats to forest regeneration: Do bat-processed seeds do better?

**Lisa Powers, University of Illinois (U.S.).** Effects of nonlethal *Geomyces destructans* infection on reproductive rate and parturition date in cave-hibernating bats.

**Iroko Tanshi, University of Benin. (Nigeria).** Diversity and aspects of chiropteran ecology in Edo State: status and conservation.

## **– Classifieds –**

### **New Section of Newsletter**

[editor@ausbats.org.au](mailto:editor@ausbats.org.au)

*This 'Classifieds' sections provides paid up members of the ABS with an avenue for advertising second hand equipment, requesting advice and seeking assistance with projects. Members need to send their Classifieds notice(s) into the Editor and I will let you know if the notice is suitable. Publication of suitable notices is free for paid-up members of the Society.*

*Think of this section as your 'one stop shop' for seeking solutions to whatever bat-related problem or piece of equipment you may have.*

*Definition of 'advertising' for the purposes of the ABS Newsletter is as follows:*

#### **Category 1**

Full page and half page stand-alone advertisements will be accepted from businesses (including consultants) for the advertisement of products and / or services related to bat research, care, education and / or policy. These advertisements may be published at any location within the *Newsletter*, however currently colour printing is restricted to the back cover, inside back cover and inside front cover. Rates for these advertisements are:

- \$225 – single full page in colour
- \$440 – two colour pages in same edition
- \$150 – single full page black-and-white
- \$275 – two black-and-white pages in same edition.
- Half page rates = halve the above amounts for single full pages.

#### **Category 2**

A new Classifieds section has been created in the *Newsletter* where any **paid-up** member may, for no-cost:

- Advertise *second-hand* bat-related equipment that is for sale (New equipment would fall under Category 1 advertising as above);
- Request information on specific bat-related topic(s);
- Request field (volunteer and / or paid) or other assistance for bat-related projects<sup>^</sup>;
- Seek field and / or other bat-related equipment;
- Advertise a bat-related event.

<sup>^</sup> The ABS *Newsletter* will accept requests for assistance for bat-related projects (e.g. field assistance), however the *Newsletter* does not exist to provide an avenue for more permanent job advertising. Specialist sites (e.g. NRM Jobs) already exist to serve this purpose.

It remains at the Editor's discretion (with consultation with the ABS Executive as required) as to whether submissions received under either Category 1 and / or 2 for advertising are suitable for publication in the ABS *Newsletter*.

By accepting advertising material for the ABS *Newsletter*, the Editor and the Australasian Bat Society Executive are not specifically endorsing the companies, products or projects that are published.

*The first couple of 'Classified' advertisements below are old messages sent to the list-server, apologies to Anna and Steve if they're outdated; but they are a great example of the type of notices that members can publish in the Classifieds.*



### **Glaring request**

[anna.mcconville@uon.edu.au](mailto:anna.mcconville@uon.edu.au)

Just wondering if any of you have a theme for a HP IPAQ Windows Mobile 2003 SE device that has black menus. I can't find any on the internet that are suitable as the OS is getting a bit old. I want to get rid of my bright menus for using with an Anabat so that it doesn't glare at me. If you can send me one or a link I'd be very grateful.



### **Ye Olde ANABATS?**

[stepheng@unimelb.edu.au](mailto:stepheng@unimelb.edu.au)

Hi everyone, Steve Griffiths here from Melbourne Uni. I'm interested to know if there's anyone out there with older model Anabats that they might want to sell? I'm probably most interested in SD1s but would also consider older models.

I know Titley are now offering a trade in system when you buy an SD2, so it might be unlikely that people are hanging onto older models. Still, no harm in putting the feelers out!

## Sunny Queensland

[julie.brokenbrow@uqconnect.edu.au](mailto:julie.brokenbrow@uqconnect.edu.au)

Hi Everyone,

I'm currently doing my Honours research project with UQ, studying microbats in the mangroves of south-east Queensland. My project aims to take a preliminary look at whether microbats are utilising different aged Grey Mangrove habitats along the coast (between Fraser Island and the Gold Coast).

This project is self-funded (with the help of kind offers of equipment and volunteers). But I really need help sourcing a few harp traps that I could borrow. I'll be doing my trapping from November to late February, but each trapping session is 4 days. I would greatly appreciate a loan of a harp trap whenever it isn't being used. I will pick it up and drop it off, I will keep your harp trap in pristine condition and will return it fully clean and restrung (I'm happy to provide references from QPWS and Greg Ford, who have loaned me equipment in the past).

Any help would be greatly appreciated (I'm also happy for more volunteers if you are keen).

Thanks

Julie Broken-Brow, University of Queensland



## Techno gadgets

[Batman3812@bigpond.com](mailto:Batman3812@bigpond.com)

### For Sale

**BAT DETECTOR** – A Binary Acoustics Technology AR-180 ultrasonic receiver with an FR-125 remote field recorder and sound analysis software (SPECT'R), plus a smart charge controller for use with a 12 volt external battery, and the essential LCD controller that is used for setting up the recording parameters. You could Google the company for more detailed information, but here is a brief description. I bought the system to see if I could separate *Miniopterus* calls and liked the automated call analysis feature. However, time, semi-retirement and old age were against me to learn to use it properly, hence it should go to a better home. It has never been used in the field, just around home.

The AR180 is Binary Acoustics Technologies widest bandwidth ultrasonic receiver, designed to receive bat calls up to 180 KHz. It is sensitive enough to detect the faintest sound a human can hear and the website states that it is capable of detecting bats at distances up to several hundred feet but I'm not sure about that. It employs a directional, wide bandwidth ultrasonic element along with ultrasonic to digital conversion technology to produce a high quality, 16-bit, digitally sampled acoustic stream that is taken into a laptop or the FR-125 field recorder.

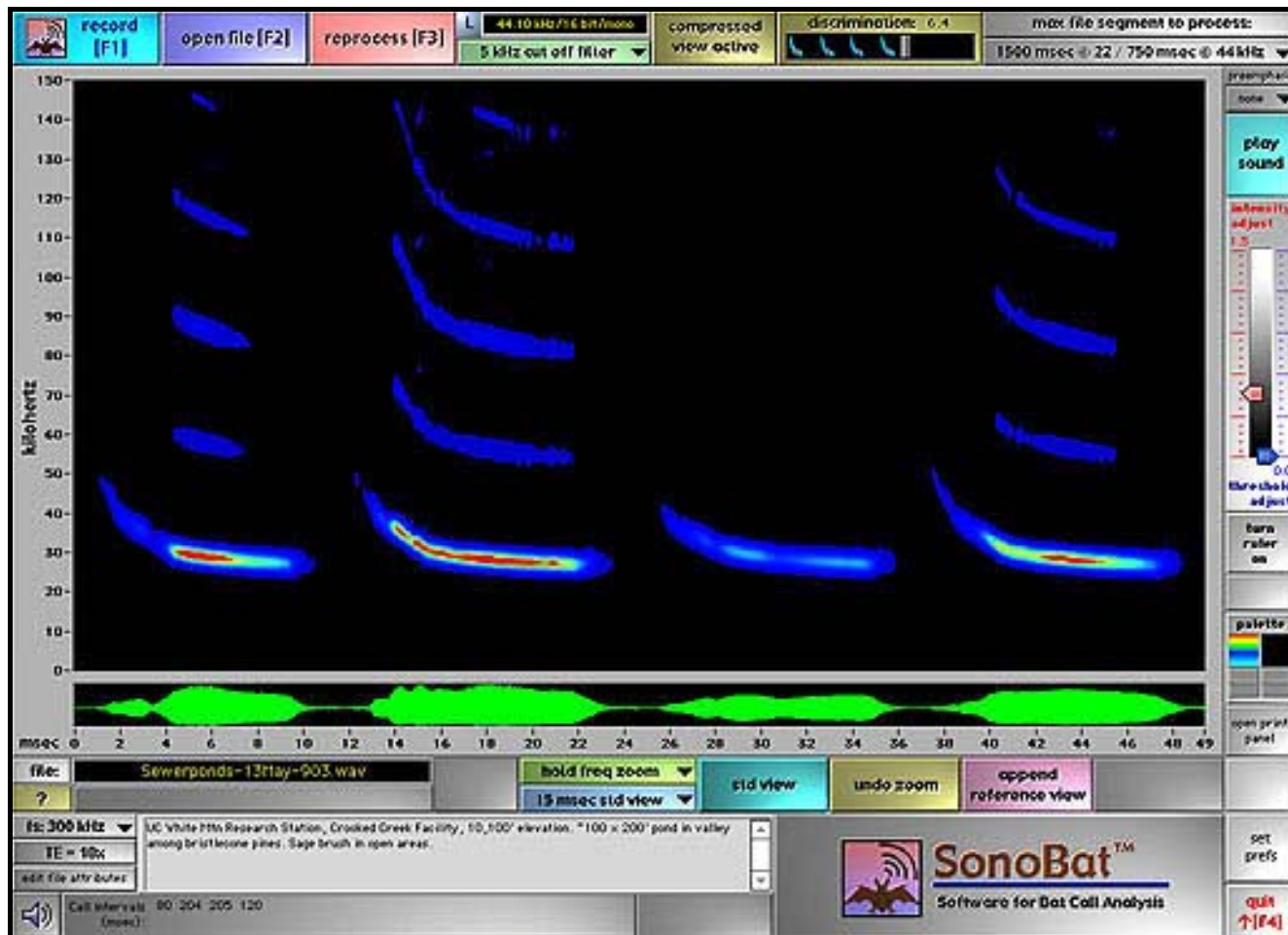
The FR125 allows for long duration unattended operation, limited only by external battery size and USB stick capacity. Sorting through and analysing large numbers of field recordings is done with an automated snapshot filtering and analysis software called [SCAN'R](#). It is designed to scan through archive directories and separate the files with bat calls from the files without them. This is very useful for filtering through large volumes of field recordings (WAV files) and maintaining libraries of reference calls. In addition, SCAN'R automatically extracts all relevant call parameter information, displays it, and saves it to a file which can be imported into an Excel spread sheet for further analysis. You can also use Sonobat software for automated call analysis.

SonoBat is used for analysing full-spectrum sonograms (as WAV files) of bat echolocation calls recorded from time-expansion bat detectors, and is quite sophisticated (see example on next page). It can append library reference calls to a call sequence or individual call and display them on the [same](#) sonogram at identical time and frequency scales – no opening of other call files in separate windows and manipulating them to make a comparison. SonoBat can also process calls into very high-resolution standard view sonograms to display nuances of call morphology and enable on-screen analysis of call data.

Purchase cost for the system with import duties and GST was around \$3500 – selling for less than half price at \$1600. Will throw in my copy of Sonobat for an extra \$150 (less than half price).

Contact Greg Richards at:  
[batman3812@bigpond.com](mailto:batman3812@bigpond.com)





## Darling volunteers required

[rachelvblakey@gmail.com](mailto:rachelvblakey@gmail.com)



## Bats in freshwater ecosystems of the Murray-Darling – Field volunteers required

Hi, I'm Rachel Blakey and I'm looking for volunteers who could put aside a block of time (1 week minimum) to assist me with the field component of my PhD research investigating the importance of freshwater ecosystems of the Murray-Darling to bats.

**What's in it for you?** You'll get a free trip (I'll cover travel from Sydney, accommodation and food) to some of the most breathtaking inland wetlands in the basin and you'll get to catch bats!

**What does it involve?** This field season, we'll be setting out Anabats and light traps in a range of habitats, capturing bats (harp trapping and mistnetting) and taking reference calls to develop a bat call key. There will be a large amount of travel, and night work (mist netting) and early morning work (checking harp traps) will be involved.



**When and Where?** This field season will run from late October till late December throughout a number of wetland systems. If you're interested please contact me for an up-to-date field schedule or more information. If you're busy this year, but still interested, I can put you on my email list for the following seasons.



**Contact?**

Please email [rachelvblakey@gmail.com](mailto:rachelvblakey@gmail.com) or phone me (0410 846 502) to get more details.



**French volunteer**

[camille.jan@yahoo.fr](mailto:camille.jan@yahoo.fr)

I am a French student who just finished her PhD at the University of Leeds and Sheffield (England) with Professor John Altringham and Roger Butlin on European bats swarming behavior ("Population structure of swarming bats in relation to dispersal"). I have planned to travel across Australia from October, from Perth to discover its wildlife and especially its bats species. I would be interested to some voluntary work, helping biologist. I was thus wondering if someone from a University or from another organisation would need a field assistant.

Thank you, Camille.



**Bats as prey (times 2!)**

[Lisa.Cawthen@utas.edu.au](mailto:Lisa.Cawthen@utas.edu.au)

Website: <http://tassiebatproject.jimdo.com>

This summer we observed a tree hollow roosting maternal colony of Chocolate Wattled Bats *Chalinolobus morio* (over 200 individuals) being predated upon by a Southern Boobook during a radio-tracking study in Tasmania.

We obtained great observations of bat and boobook behaviours during the predation event due to a great silhouette of the tree and good lighting (in summary: the boobook first attempted to predate at the roost unsuccessfully then after several attempts captured a bat in flight as it flew around the roost tree. From our observations, the Chocolate Wattled Bats did not alter emergence behaviours and the roost was re-used by some individuals of the same colony days later at much lower numbers).

We are currently writing up our observations and were scouring for Australasian direct observations of bat predation by owls in the literature / *ABS Newsletters*. Worldwide there isn't many (not suprisingly) but so far we have been unsuccessful for Australasian observations.

We would really appreciate any input. If you know of any observations written in newsletters / journals or have any observations you would like to contribute (fully referenced and reviewed by the contributors) we would really appreciate it.

Lisa and her bat roost watching volunteers.



**Bats as prey...continued**

[Martin.nyffeler@unibas.ch](mailto:Martin.nyffeler@unibas.ch)

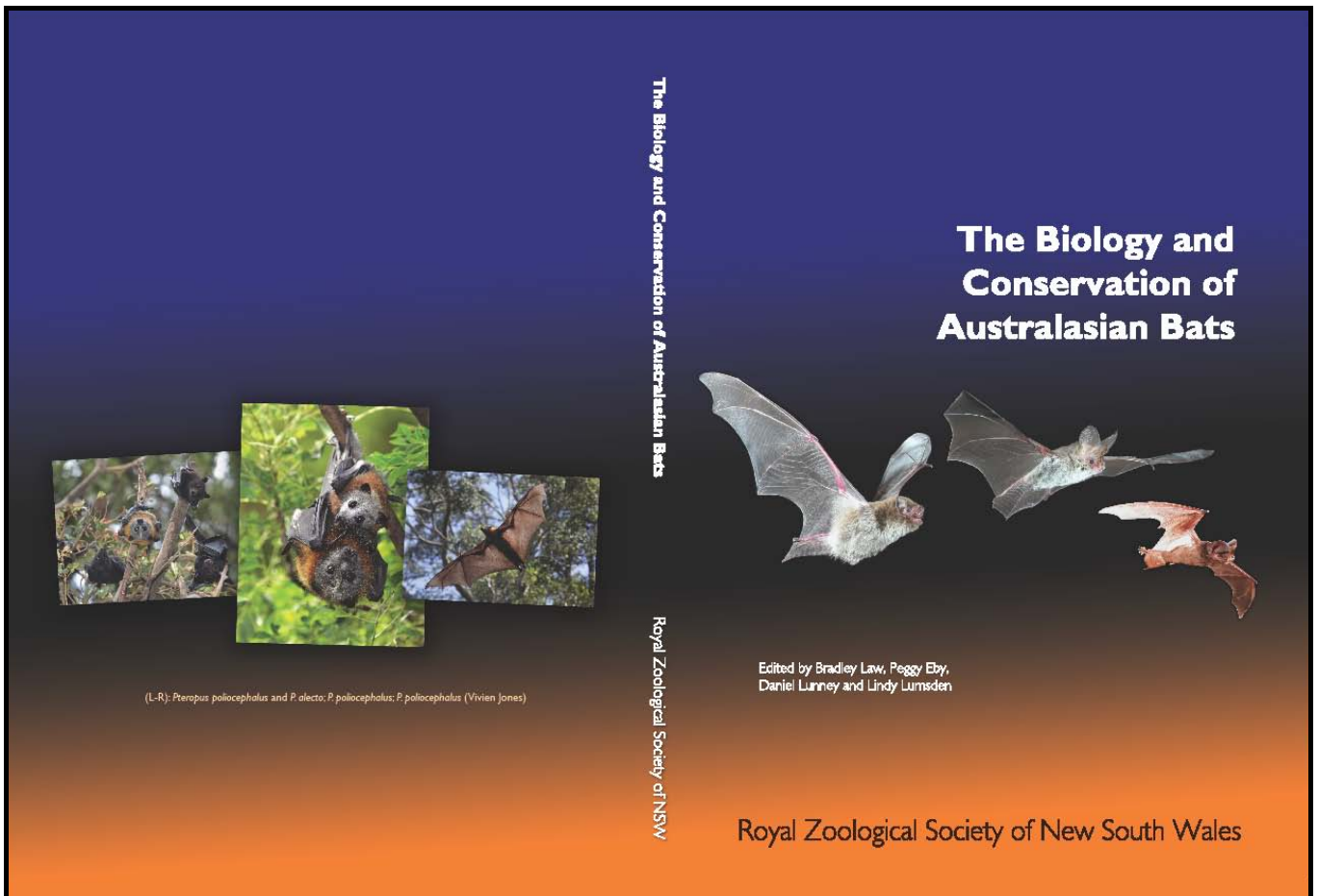
My name is Dr Martin Nyffeler and I am a Senior Lecturer in Zoology / Arachnology affiliated with the Dept. of Environmental Sciences, University of Basel, Switzerland.

I am currently preparing a scientific review paper on the topic of *spiders killing bats*. Thus, I am gathering published and unpublished reports on this topic. So far I have found about 30 reports from all over the world documenting that bats were killed by large spiders. Among others I know of two reports from Australia where it was witnessed that bats were killed in webs of the large orb-web spider *Nephila pilipes*.

I am trying to find out how frequently such spider/bat interactions might be. I would like to ask whether there are any other incidences of bats being killed by web-building spiders. Any information would be greatly appreciated.



– Book Review –



## The Biology and Conservation of Australasian Bats

*Edited by Bradley Law, Peggy Eby, Daniel Lunney and Lindy Lumsden*

The *Biology and Conservation of Australasian Bats* follows from the successful 3-day forum of the same name held in April 2007 at the Australian Museum. The forum was organised jointly by the Royal Zoological Society of NSW and the Australasian Bat Society.

In contrast to Europe and North America, where the small insectivorous bats (microbats) comprise the entire bat fauna, Australasia also has a diverse suite of flying-foxes and blossom bats (megabats). This book is aimed at highlighting the diversity, complexity and conservation of these nocturnal mammals. The initial set of participants in the forum comprised bat experts from across Australasia, with several overseas visitors also contributing to increasing knowledge on Australasian bats.

Mark Brigham also adds an international dimension in his foreword. In addition, some papers were contributed by bat specialists who could not attend the forum. One of the special features of the forum was the contribution of some of the pioneers of Australian bat research.

The *Biology and Conservation of Australasian Bats* can be purchased online at:

<http://www.rzsnsw.org.au/>



*[Ed: A review of this exciting new book would be a welcome contribution to the next edition of the Newsletter. Please let me know if you would like to undertake this task.]*

**– In Memoriam –**



**Julie Spence**

**7th April 1951 - 27 December 2010**

***From Maree Kerr***

Julie Spence was instrumental in developing methods for caring for both flying-foxes and microbats in captivity and in conservation of bats as a volunteer with Ku-ring-gai Bat Conservation Society, the Cabramatta Creek Flying-fox Committee and WIRES. In October 2010, after being ill for some months, Julie was diagnosed with an aggressive cancer and passed away on the 27th December 2010.

Julie was interested in animals and animal welfare from an early age. In 1987 she joined WIRES as a wildlife carer and co-founded the WIRES North-West Support Group and joined the Ku-ring-gai Bat Conservation Society in 1989 as part of the rescue, rehabilitation and release team

for orphaned and injured Grey-headed Flying-foxes. Julie's interest in bats developed from this time and she became a specialist bat carer and trainer in bat care for both microbats and flying-foxes. During 1991, she pioneered microbat rehabilitation and compiled care and management notes on their rescue, rehabilitation and release. In 1992, she prepared a comprehensive document on the management, rehabilitation and release of insectivorous bats (microbats). It included an identification guide for species occurring in south-eastern Australia. Many wildlife carers in the greater Sydney area have been trained by Julie to care for both micro- and mega-bats in one or other of the over 19 microbat and innumerable flying-fox training courses that she managed. Julie was a bat bander under the Australian Bird and Bat Banding Scheme, Project Co-ordinator of the Flying-Fox project at Cabramatta Creek Flying-



Fox Colony and founder of the Cabramatta Creek Flying Fox Committee.

From an initial interest just in care of the animals she realised that habitat conservation was crucial to survival of the species, and she volunteered in many research projects with leading bat researchers in order to understand more about issues relating to bats and to develop techniques. She co-authored over 16 publications on bats. She gained great respect from several scientists including Glenn Hoyer and Chris Tidemann with whom she worked. Her skills in handling flying-foxes were used when researchers took blood and tissue samples for genetic studies and she coordinated the setting up of the huge harp traps used for catching flying-foxes at Cabramatta Creek. This was part of a series of banding studies to find out more about the movements and longevity of flying-foxes.

Julie was an inspirational bat carer and trainer and her enthusiasm for learning more about bats and passing this knowledge on is warmly remembered by all that knew her. Without her we would not know as much on captive care for rehabilitation and release as we do today - her pioneering work opened the way for further advances in bat care.

Below are a few thoughts from those close to her in Ku-ring-gai Bat Conservation Society (KBCS) and WIRES where she made life-long friends:



***From Nancy Pallin, Ku-ring-gai Bat Conservation Society Inc.***

Julie was a very active member of Ku-ring-gai Bat Colony Committee (KBCS) between 1989 and 1992. She is remembered for her expert care of animals, especially bats and her warm personality.

Hannah, a rehabilitated Grey-headed Flying-fox, who has just celebrated her 23rd birthday at Australian Walkabout Wildlife Park at Calga, was trained by Julie for education talks.

Many children and adults learned about bats from Julie and Hannah. Julie's organisational skills were put to good use in coordinating rescues of flying-foxes across Sydney. She helped set up the system where each animal was given a call number and tracked through to release.

Although she lived at Blacktown she coordinated the release of rehabilitated flying-foxes at Gordon, obtained fruit supplies, conducted night watches of flying-foxes and presented thorough reports to the Committee.

Julie pioneered the care of microbats and sought assistance from scientists in identifying them. She mapped the sites across Sydney where microbats were rescued, providing an insight into the distribution of several species. She provided information on threats from cat predation and destruction of roosts when trees were removed.

At Friends of Bats nights at Gordon, Julie, with her patient manner, explained many times, aspects of their lifestyles to adults and children who were fascinated by these tiny creatures. She arranged for photographs to be taken of these microbats for showing at educational talks. Julie went on to work with Fairfield City Council to protect and regenerate habitat for flying-foxes at the camp on Cabramatta Creek.

Julie Spence was a multi-talented contributor to the welfare and understanding of bats.

We remember her with affection.

***From Sonya Stanvic, WIRES***

There are some people you meet during your life time who become long term friends, Julie was one of those – we have known each other for over 23 years, ever since 1987 when she was promoting a new group called WIRES!

The Blue Mountains branch was the second branch to form about a year after Sydney started, Julie then went on to set up the North West branch of WIRES.

Julie introduced me to Mega and Microbats and she also invented the dummy for flying-foxes, which we all use today.



\* Julie formed the first all-female Bat Team to set-up the Megaharp trap, band and record Flying-fox statistics at Cabramatta.

\* Julie held an A class licence under the Australian Bird and Bat Banding Scheme (ABBBS) she also trained other members of wildlife organisations to become bat banders.

\* Julie was involved in the book "Raising Archie" by Richard Morecroft.

\* Julie also worked with bat scientists in both Mega and Microbats. She has co-written papers on both groups of bats.

\* Julie worked for The Animal Welfare League and was on many committees regarding domestic and native animals.

I met Julie at a KBCS meeting in 1990 when she introduced me to a baby flying-fox. She later gave me my first orphaned flying-fox to raise, Merlin. My strongest memories of her were her dedication to bats, their care and conservation. I was with her when KBCS members discovered the Cabramatta Flying-Fox colony site. I watched with amazement when she rescued a mixed

group of microbats with dependent young and raised these over an extended period, teaching them how to hunt in an out-door enclosure covered in shade-cloth, until they could be released. Julie delivered presentations on captive management for release to ABS conferences during the 1990s as well as training bat carers with wildlife groups and the KBCS. She may have begun as an ordinary person but developed into an extraordinary inspirational human being whom I am proud to have known.

I have Julie's permission to place her notes on Ozark so all carers can have access to them to help them understand and care for these delightful small winged mammals.

*Ed: In Edition 36 the photo caption should read from left to right: Linda Collins, Amanda Boardman and Julie Spence. Apologies for the mistake.*

**Compiled by Maree Kerr.**



Eastern Horse-shoe Bat *Rhinolophus megaphyllus*. Photo by Lib Ruytenberg.



**– Recent Literature –**

Compiled by Jo Burgar (Murdoch University, Perth) from Web of Science (mid-March 2011 – early October 2011).

[Ed: Thank you very much to Jo for stepping in and compiling this comprehensive recent literature list. My pick of the bunch is a gratuitous plug for Joanna Coleman and Robert Barclay's recent paper. It is the least I can do as Jo and Robert were very kind hosts to me a few years back in Canada, enjoy.]

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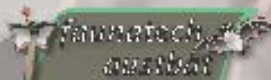
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