

Issue 5 (Friday, 27 July 2007)

AEDA News is a fortnightly email for members of the Applied Environmental Decision Analysis CERF Hub.

In this issue

- 1. Speed communication and getting the message over?** (from the Director)
- 2. Empiricists of Canberra** (Someone's got to keep the theoreticians honest)
- 3. Could this be the job for you?** (Good opportunity for an AEDA member, and AEDA)
- 4. AEDA at the 21st SCB** (spreading the word around the world)
- 5. Posting publications in public (web) spaces** (Is it legal?)
- 6. New publications** by AEDA members
- 7. Introducing AEDA's new website** (Why would I bother to bookmark this?)

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1. Speed communicating and other ways of getting the message over? (from the Director)

One of my most exciting experiences at the recent Society for Conservation Biology meeting at Port Elizabeth was listening to the speed presentations. Speed presentation sessions break the conventional rules about conference communication. Instead of a two hour session filled with 15 or 20 minute talks (with negligible discussion or time for interaction) speed presentations deliver twice as many talks and allow for lots of interaction.

The format of a speed presentation session is as follows: 15 four-minute talks followed by an hour where the presenters sit at separate desks and chat with whomever in the audience wants to engage with them. I was surprised how much information could be transmitted in four minutes. (Given that my plenary presentation lasted 50 minutes, I should have been able to give 12 such talks!)

On reflection speed presentations make a lot of sense. In the first four minutes one can pose a question, define the broad method and give a one line answer, especially if one has good graphics, maps and figures. In a more traditional long talk you usually know in the first four minutes if it'll be useful or not - but then you have to sit through the rest of it regardless (and half the time you aren't interested). The speed presentations (not to be confused with speed dating which has a different objective) allows the listener to sample lots of ideas and then spend quality time with the three or four presenters whom they really want to talk to.

Another version of speed presentation allows the user

to have a poster as well and talk without powerpoint. The presenter stands in front of their poster and gives a 3-4 minute talk. Then there's an hour for casual small group discussions.

Thinking about how we present at conferences raises broader issues about how we communicate in general. AEDA is about quality research that makes a difference and hence we're interested in communicating our research to people who make a difference. These people include policy makers, public servants, politicians and representatives from non-government organisations.

The question is - how is this best done for the least cost? Is it by talks at conferences, one page information sheets, posters, flyers, press releases, web sites, books or briefings? More than likely it's combination of some of these things and more. Maybe you have your own ideas on what works and what doesn't.

Over the next few months, with the assistance of our knowledge broker, David Salt, we'll be thinking long and hard about this issue, and we welcome your input. Many AEDA researchers know what it's like to be an implementer of research in a non-academic organisation. Your experience is important if we're to make our communication effective and efficient.

Hugh Possingham
Director, AEDA
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2. Empiricists of Canberra

Someone's got to keep the theoreticians honest

David Lindenmayer, leader of AEDA's Canberra Node, shares his views on AEDA's strengths and purpose, and why a bit of difference between the nodes makes us so much stronger.

I think the most important thing about AEDA is that it offers the opportunity to integrate the research of three very vibrant nodes based in Brisbane, Canberra and Melbourne. It's about allowing a meeting of minds of people who come from slightly different disciplines, sometimes very different disciplines, within conservation, ecology and resource management, to think about solving problems with data, with decision-making tools and probably with other things that we haven't even thought of yet that will likely emerge over the next two or three years.

Our node here at the ANU is somewhat different to the other two nodes in the sense that it's focussed on large-scale, long-term empirical investigations and natural experiments. We're trying to tackle problems in terms of what's really happening on the ground. We're trying to measure, in terms of biotic response, what happens when there's a management intervention like an

AEDA News

Empiricists of Canberra (continued)

application of fire or there's logging and all those sorts of things.

In many cases what we're going to find is that the theory, which might be developed in other nodes, is an interesting way to try and predict what's going on. However, when you're measuring things out in the field you often uncover ecological surprises, things totally unforeseen. And it's these discoveries that generate ideas that lead to a refinement of the theory. Indeed, there's an ongoing feedback from the theory to the empiricism and from the empiricism back into the theory. That's why it's important that the different nodes interact.

One of AEDA's important aims is to encourage and enhance this interaction through workshops. We bring together people from the different nodes (as well as from policy and management arenas) to tackle some of the big challenges that face us. For example, how do you design a monitoring program? In our group we're already operating a number of long term monitoring-programs so we have considerable on-ground experience here. How might we carry out these monitoring programs more effectively? What are the insights that we have generated from actually doing monitoring that might inform the development of decision-making theory and monitoring (and vice versa)? By meeting, sharing our insights and interacting I believe this AEDA initiative will really advance things a lot further than where they are now.

A really good case study on this is in the area of landscape restoration – putting trees back in the ground so that there is a biodiversity outcome. It's not intuitively clear what the best option is for land managers on a farm. Would it be to 'not clear a patch of vegetation' or would it be to 'establish revegetation in another area'? Now, there's a whole body of thinking about making decisions on this which comes from Hugh Possingham's lab, and Mike McCarthy and Brendan Wintle and their group in Melbourne. And we have an empirical study, the Riverina Restoration Study, which we've been running since 2000 where we're actually collecting data on the biodiversity value of restoration.

We're finding out which birds, which mammals and which reptiles are responding to restored vegetation and how the two types of vegetation (restored and remnant) interact, because they don't operate independently. Most farms where revegetation takes place already has some type of remnant vegetation, and the two are not isolated from each other.

So, we have good empirical data on what's actually happening on the ground and what we want to do is integrate that with the thinking about how you make decisions that are really effective in terms of revegetation. Towards this end AEDA ran a workshop in Brisbane in June. Over a couple of days we discussed various issues relating to this issue. With good empirical data coupled with good decision-making tools, ideas and theory we can actually get a lot better and more effective outcome on the ground than what's been achieved so far. And that's really adding value. It adds value to the tools, it adds value to the theory and it adds value to the empirical data as well. And this

knowledge also has the potential to add value to the initiatives that governments and CMA's are all about.

So how might AEDA's activities actually manifest themselves in policy? Consider the stewardship program just announced by the Australian Government where it's planning to make payments to landowners to improve biodiversity outcomes on farms. By coupling decision tools with empirical data about what's really happening on the ground AEDA would be in a position to say to the government 'these are the kinds of things that you might list as your priorities to invest in for particular landowners, and these are the kind of things that you should be asking your landowners to monitor to give you some idea of your return on investment'. Initiatives like the stewardship program sound like a good thing to do. Maybe through AEDA we might be able to put a bit more science behind it, actually help the science form the policy

Of course, science is often left behind so we're hoping that over time AEDA will produce a variety of products that will assist us in getting the message over. One product that we're planning over the coming years is to write a short book on new age restoration techniques for farms. By new age I mean incorporating recent science (not mystical enlightenment). In this book we might come up with 5-10 types of farms that are typical in southern NSW and northern Victoria. And these farms might vary in terms of the native vegetation cover, the amount of replanted vegetation and the condition of the land. And then on each kind of farm we would present three or four options as to the priority actions you might undertake.

A government policy advisor would look at these options and say 'okay, these are the kinds of trigger points that we would use to try to see how effective our investment is'. It's possible then for farmer to gauge what kinds of things they might do, and it's possible for policy makers to look at those types of farms and rank them in terms of what actions might be involved. It's also possible to work out what kinds of investments might be needed to make those farms good places for biodiversity or keep them as good areas for biodiversity. Guides like this can be quite practical once it's evolved to that stage.

Part of our challenge is to ensure that the decision frameworks we develop are user-friendly and relevant to the different sorts of people who will be using them. If they're too complicated that's never going to happen. Another part of the process is simply alerting decision makers to think through deeply the basis for the decision they make recognising that there are trade offs. Half of a difficult journey is actually making the first step and that first step in this process is to recognise that there are different things that you can do and those different things lead to different outcomes. Then you have to think about trading off those outcomes.

David Lindenmayer
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3. Could this be the job for you?

(Good opportunity for an AEDA member, and AEDA)

Would you like to use your GIS and database skills to analyse, map and model the distribution of Australia's species? Do you have experience with spatial analysis or modelling of biodiversity information? Could you manage software to help identify the best of Australia's amazing natural heritage?

The Australian Natural Heritage Assessment Tool (ANHAT) analyses distribution patterns for thousands of Australian species, along with a range of environmental information to answer questions about the distribution of biodiversity and natural heritage. ANHAT is supported by the most comprehensive database of the locations of Australian species. The software runs in Oracle with user interfaces in MS Access and ArcGIS.

The position involves a range of spatial analysis, data management, mapping and programming tasks, and has scope for development of new biodiversity mapping techniques or software depending on skills and interests. The successful applicant will have experience with manipulating biodiversity information using databases and geographic information systems.

Selection documentation may be obtained by telephoning Ally Todd on 02-6274-2064; email alexandra.todd@environment.gov.au or via the Internet at <http://www.environment.gov.au/jobs/opportunities/>

Title: Spatial & Biodiversity Information Analyst

Employer: Commonwealth Department of the Environment & Water Resources (Heritage Division/Heritage Assessment Branch)

Salary/Conditions: Salary range: \$59,316-\$67,110pa (APS Level 6)

This position will be based in Canberra (Civic), ACT.

Applications must be received by COB 11 August 2007.

Editor's note: Unless someone specifically requests it, I wouldn't normally include a jobs ad in the AEDA news. However, this one looks particularly relevant to many AEDA members, and it'd be based in an area in which AEDA might interact. So, if you're an AEDA member and you end up in this job, it'd be great if you kept up the association. (Oh, and you'd be in Canberra, what a fabulous place to live!)

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4. AEDA at the 21st SCB

(spreading the word around the world)

Report on the 21st annual meeting of the Society for Conservation Biology. Port Elizabeth, South Africa. 1 - 5 July 2007.

The Society for Conservation Biology (SCB) meeting is the premier international conference for conservation scientists. This year, 19 members of The Ecology Centre, University of Queensland, and numerous members of other AEDA centres were in attendance. AEDA had a high profile at this meeting, providing a valuable contribution to the science of conservation biology and the global society.

Hugh Possingham delivered one of four plenary addresses* titled Making Smart Conservation Decisions on 4th July. He outlined the necessity for conservation planners to incorporate economic information into their

decision making process in order to adequately solve conservation problems with limited resources.

There were also many successful oral and poster presentations over the course of the meeting from AEDA members that were though provoking and well received by the SCB community.

Additionally, AEDA members organised and ran a successful short course and workshop in the lead up to the conference. These events were attended by graduate and undergraduate students and practicing professionals from university, government and non government agencies around the world. Valuable lessons and research information were picked up by participants to advance conservation planning in their country and organisation. Multiple collaborations and projects have been inspired out of the events, and AEDA staff benefited from useful user feedback for the ongoing development of software.

Bob Pressey, Carissa Klein and Matthew Watts organised and presented a four day short course from the 26th to 29th June, entitled "Systematic conservation planning and the role of software: from data to implementation and management". Topics covered included an overview and key concepts of conservation planning, planning in different environments and C-Plan and Marxan conservation planning software. Twenty guest presenters and 34 participants from countries including Brazil, Finland, Italy, Namibia, South Africa, United Kingdom and USA were involved in the course.

Hugh Possingham, Carissa Klein and Matthew Watts organised and presented a one day workshop on the 1st of July entitled "Development, Application and Challenges of Systematic Conservation Planning Software, Marxan and MarZone". The workshop focused on developments, applications and challenges of the Marxan conservation planning software, and participants were invited to present unique challenges from their projects, stimulating an interesting discussion. Twenty participants from countries including Brazil, France, Italy, Madagascar, Norway, South Africa and USA were involved in the workshop.

**Note: You can have a look at Hugh's plenary presentation titled Making Smart Conservation Decisions by visiting the home page of the UQ Ecology Centre (<http://www.ecology.uq.edu.au/>)*

*Matt Watts
Brisbane Node, AEDA
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Matt Watts (standing) helps a marine planner and a park manager from South Africa during the 4-day Systematic Conservation Planning course.

5. Posting publications in public (web) spaces (Is it legal?)

Most people have lists of authored papers on their webpages, but what about going the extra step and having the papers themselves accessible at the click of a mouse? I've been asked a few times if posting papers on websites is legal or does it infringe copyright (and most of us know someone who has posted the pdf of their paper directly from their web page).

I've done some digging on publishers' guidelines and the short answer is 'it depends'. The policy varies from journal to journal, and publisher to publisher. In many cases, while it is possible to post a copy of your own self-produced version of the article, it is not permitted to post the final published version, although a link may be given to the final version on the publisher's website. Indeed, some stipulate that the link MUST be given.

For example, Springer, which publishes Landscape Ecology and Biodiversity and Conservation among other titles, states that an author may publish on a website an author-created version of a paper, however, he/she may not use the publisher's PDF version. A link to Springer's website must be provided with the text "The original publication is available at www.springerlink.com"

Elsevier, who produce Biological Conservation and TREE has similar guidelines, as does Blackwell Publishing who produce, for example, Oikos and Ecology Letters. However, some Blackwell journals state that articles must be older than 12 months before they can be posted and in the case of Journal of Applied Ecology, for instance, only an abstract can be reproduced.

The Ecological Society of America are more generous with their rights and the final published versions of papers published in journals such as Ecology and Frontiers in Ecology and the Environment can be posted on websites.

So, before you do any public posting you're strongly advised to check the copyright stipulations of the journal in which you've published.

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6. New publications by AEDA members

*Hunter ML, Lindenmayer DB, Calhoun AJK (2007) *Saving the Earth as a Career*. Blackwell Publishing: Oxford.

Field SA, O'Connor PJ, Tyre AJ and Possingham HP (2007) Making monitoring meaningful, *Austral Ecology* 32, 485-491.

Walshe T, Wintle B, Fidler F and Burgman M (2007), Use of confidence intervals to demonstrate performance against forest management standards. *Forest Ecology and Management* 247, 237-245.

Have you published an article or book recently that other AEDA members might be interested in? If you have, please send us the information so we can list it in the next issue of AEDA news.

*A note on the new book: *Saving the Earth as a career*. It's just been released by Blackwell Publishing and you can read all about it at:

<http://www.blackwellpublishing.com/book.asp?ref=9781405167611&site=1>

Written in an informal and engaging style, *Saving the Earth as a Career* is an ideal resource for students and professionals pursuing a career in conservation.

Here's what a couple of reviewers have said about it:

"This is a much-needed and invaluable resource for those pursuing a career in conservation, written by an experienced trio who freely dispense sage advice. If you want to be a conservation professional, read this book, perhaps more than once."

Gary K. Meffe, Editor, Conservation Biology

"Conservation professionals invariably take themselves way too seriously. This, in contrast, is a useful, novel and very entertaining book packed full of pithy advice"

Hugh Possingham, University of Queensland

Note: the Blackwell Publishing website says the book is available in the USA in July 2007, the rest of the world in July 2007, but in Australia (which must lie somewhere other than 'the rest of the world') in September 2007.

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7. Introducing AEDA's new website

(Why would I bother to bookmark this?)

Guess what? AEDA has a website. Check it out at www.aeda.edu.au

Okay, it doesn't have many bells and whistles, the pics in the header are a bit icky and clearly many of the pages are still only placeholders. However, for all that, it's a good start (for which we need to thank Bronwyn Tutty and the Webservices team at UQ). Now the challenge is to build on this and make it a site worth knowing about; we want it to be a site that everyone has in their list of book marks.

In the first instance we want AEDA members to know it and use it. Of course, no one's going to force you to do that but if it contains resources that you find genuinely useful it'll happen on its own. So what would make you use our site? A vibrant news page? An archive of fact sheets presenting your science in engaging prose? Funny pics of AEDA members doing silly things? Workshop listings with the ability to book in to workshops via the web interface? An AEDA blog spot? We want your feedback. Remember, it's your resource.

In the second instance we want our stakeholders using and valuing the website. That's policy makers, decision people and the broader public. Again, your feedback on what makes the website valuable will help us make it a more effective site.

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That ends issue 5 of AEDA News. If you have news or views relating to AEDA or of interest to AEDA members, please send it to the editor, David Salt, dsalt@cres.anu.edu.au