

AEDA News
Issue 3 (Friday, 29 June 2007)

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

1. **What's AEDA doing in South Africa?** (From the Director)
2. **A mosaic of NRM activity around Australia** (new NRM website launched 19.6.07)
3. **Three Awards for your consideration** (Fulbright, Qld Young Achievers and the Australasian Science Prize; and the editor's musings on why you should have a go.)
4. **Info-Gap Theory and Its Applications in Biological Conservation** (Up and coming one day workshop in Melbourne, 2.8.07)
5. **New publications** by AEDA members
6. **AEDA - what's in a name?** (Why is a CERF research hub a bit like an opera?)

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1. What's AEDA doing in South Africa? (From the Director)

Many AEDA members are off to South Africa for the annual [Society for Conservation Biology Conference](#). This is the biggest annual event for the science of conservation biology. The decision to spend time and money overseas prompts a common question: "*why talk to people overseas when there are plenty of problems in Australia*"? The simple answer is, conservation science is global; indeed all science is global.

The problems Australia faces are very similar to problems in South Africa, Brazil, the USA and Israel. We have a lot to learn from each other and communication at conferences and through international peer-reviewed literature enables us to ensure we don't reinvent the wheel. Parochial scientists are fond of reinventing the wheel.

It is also worth noting that Australia has a special global responsibility, especially to southern hemisphere countries and to other biodiverse countries. The conservation science of much of Europe and North America is the science of deciduous forests and human-impacted ecosystems. Australia has several of the most well-known conservation scientists in the world and our ideas and methods have special relevance to other highly diverse but scientifically less well supported countries.

We have a unique global responsibility. Supporting international conservation science and delivering technical workshops at these meetings (AEDA is hosting two) is part of that responsibility.

Hugh Possingham
Director, AEDA
h.possingham@uq.edu.au

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2. A mosaic of NRM activity around Australia (new NRM website launched 19.6.07)

The Australian Government has just launched a new NRM website showcasing 500 NRM projects happening all over Australia. The [Mosaic Map](#) website highlights a selection of projects funded over the last 10 years under the Government's \$5.1 billion Natural Heritage Trust, and the associated \$1.4 million National Action Plan for Salinity and Water Quality in 56 regions across Australia.

Malcolm Turnbull, Minister for Environment and Water Resources, said the Trust and the National Action Plan had mobilised more than 800,000 people in the past 10 years – one of the largest natural resource volunteer sectors in the world.

The [Mosaic Map](#) website displays a map of Australia which will allow users to search for Trust and National Action Plan projects at a national, state, territory and regional level. Short articles on up to 10 projects chosen by the natural resource management regional bodies are featured for each region, together with high quality images. More will come as the website is further developed.

"It makes sense that at the time we are celebrating the 10-year anniversary of these activities, that we are launching a website to showcase what some of the achievements have been", Mr Turnbull said.

Check it out at www.nrm.gov.au

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3. Three Awards for your consideration (Fulbright, Qld Young Achievers and the Australasian Science Prize; and the editor's musings on why you should have a go.)

2008 Fulbright Scholarships (Applications close 31 August 2007)

Valued at up to \$A40,000, Fulbright scholarships are open to Australian citizens to undertake research or study in the United States for 3–12 months. Scholarships can commence between 1 July 2008 and 30 June 2009. Applications are open to Postgraduates (to do research related to their Australian PhD or enroll in a US degree); Postdoctoral, Professional and Senior Scholars from any field of study.

Information and application forms - www.fulbright.com.au and click on Fulbright Scholarships for Australian citizens

2007 Queensland Young Achiever Awards (Nominations close 10 August 2007)

Nominations for the 2007 Queensland Young Achiever Awards are now open and the organisers would like to encourage you to nominate a deserving young person for this year's Science and Technology Award or Environment Award.

The Queensland Young Achiever Awards are open to all young men and women between the ages of 14 - 27 years of age, who are determined, successful and talented in the following categories: Environment Award, Arts, Career Achievement, Community Service Award, Regional Initiative, Science and Technology and Sports.

There are some great prizes up for grabs with each category winner receiving a \$2,000 Heritage Building Society account, a hand crafted glass trophy and a gift basket. There is also an additional \$2,000 Heritage Building Society up for grabs for the Overall Young Achiever

Information and nomination forms available at http://www.awardsaustralia.com/YAA_qld.html

2007 Australasian Science Prize (Nominations close 14 September 2007)

Optical fibres made from cheap polymers, semiconductors that use the absence of electrons to carry charge, and DNA enzymes that block the growth of tumors' are some of the inspiring research developments that have been awarded the Australasian Science Prize.

Australasian Science is Australia's only monthly science magazine, and since 1937 has dedicated its pages to world-class science from our most inspiring minds. The Australasian Science Prize, awarded annually, provides priceless recognition to Australian scientists whose

work best encapsulates these ideals. Criteria considered by the judging panel include scientific originality, breadth of impact, and communication to both the scientific and broader communities.

Information and nomination details available at http://australasianscience.com.au/AS_Prize.php

'Ave a go ya mug!

Editor's note: I'm happy to include notices on awards and opportunities that AEDA members might be interested in (where time and space allows). As a rule I will try and keep descriptions to a minimum and provide decent warning before close of nominations.

Also, if you send me a notice for inclusion in AEDA News, it helps if you can provide any associated 'intelligence' to help AEDA members in making a decision as to whether it's worth making the effort to nominate. So, for example, the manager for the Qld Young Achiever Awards has been saying that every year they struggle to get nominations in the categories of Science and Technology and the Environment. So, if you're under 27, work in Queensland, and you think you've achieved well in the last year maybe it's worth your while taking the time to nominate. The odds might be in your favour for a \$2000 prize (and the associated attention).

The Australasian Science Prize on the other hand only offers publicity but is relatively easy to enter. Also, there's never been a winner in the area of decision science for the environment so maybe your chances will be slightly higher (as they go for diversity).

On a more general note, don't think of time spent preparing an award nomination as wasted effort if you don't win. Casting and recasting your research into plain words emphasising its relevance to the wider world is an invaluable exercise in thinking and communication. From my perspective, as a science communicator, researchers simply don't do enough of it, and preparing award nominations is a great excuse for having a go. And, of course, every time you do it you get a little better and improve your chances next time. Being successful in any of these awards will prove a tremendous boost to your career prospect.

David Salt
Canberra Node, AEDA
dsalt@cres.anu.edu.au

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4. Info-Gap Theory and Its Applications in Biological Conservation

A one day workshop at ACERA, University of Melbourne, 2 August 2007

The aim of the workshop is to bring participants to a level of competence at which they can use info-gap theory to formulate and solve basic problems of analysis and planning in the face of severe uncertainty. The workshop involves lectures as well as problem solving by the participants, in approximately equal proportions. By the latter I mean exercises on formulating info-gap models and calculating robustness and opportuneness functions. The participants work on these problems, and I wander around giving assistance and explanation where needed.

The goal of the workshop is to bring the participants to the position of being able to:

- Recognize an info-gap uncertainty, as distinct from more structured probabilistic uncertainties, both for parameter uncertainty and uncertainty in functional forms.
- Be able to specify a quantitative info-gap model for the info-gap which has been identified.
- Formulate a decision problem regarding that info-gap, and calculate robustness and opportuneness functions for that problem.
- Use those immunity functions (robustness and opportuneness) to make planning recommendations.

The following is an outline of the workshop. Each item is a 50-minute unit, followed by a 10-minute break.

1. Lecture: **Info-gaps, probabilities, and the robust-satisfying strategy**. 2-envelope paradox, Keynes' riddle. Saving the Sumatran Rhino.
2. Lecture: **Project scheduling with uncertain task times**.
3. Exercise: **Budget allocation with uncertain costs**.

Lunch Break

4. Lecture: **Assay design for monitoring with spatial uncertainty**.
5. Exercise: **Monitor deployment. Value of marginal detector**.

Coffee Break

6. Lecture: **Hybrid uncertainty. Uncertain probability distributions**.
7. Exercise: **Uncertain return on investment for bio-diversity**. Investments are in species and the returns are increases in population size.

Yakov Ben-Haim
Technion
Israel Institute of Technology

Please note: Hugh has indicated that AEDA will pay for any AEDA members who would like to attend this workshop. To register your interest please email jacqui.hansen@uq.edu.au

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5. New publications by AEDA members

- John K. Stranlund and Yakov Ben-Haim;
Price-based vs. quantity-based environmental regulation under Knightian uncertainty: An info-gap robust satisfying perspective, Journal of Environmental Management. In Press, Corrected Proof, available online 28 March 2007

Have you published an article or book recently that other AEDA members might be interested in? If you have, please send information to dsalt@cres.anu.edu.au so it can be listed in the next issue of AEDA news.

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6. AEDA - what's in a name?

If you've heard Hugh talk about AEDA you'll hear him pronounce it as 'ay-ee-da' which has caused several people to quip: "Isn't that an opera?"

Well, indeed it is, though the name of the opera is usually spelt Aida. Now, while this is only a coincidence, the fast thinking AEDA member can quickly turn this to their advantage by pointing out that not only does our name sound the same but, like the opera, AEDA is also focussed on important decision making.

Aida the opera is about an Ethiopian princess (named Aida) who is captured and brought into slavery in Egypt. A military commander, Radames, must decide between his love for her and his loyalty to the Pharaoh. How will he choose?

AEDA the CERF hub is about producing science to assist in good decision making. If only Radames could have had a chat with a few of AEDA's people as he grappled with his dilemma. He may then have been better placed to characterise the uncertainty surrounding his situation allowing him to better weigh up the competing demands on his limited resources.

FYI: *Aida* is said to be one of the world's most popular operas. It was written by the Italian composer Giuseppe Verdi and is based on a story written by French Egyptologist Auguste Mariette. The opera was first performed in Cairo in 1871.

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That ends issue 3 of AEDA News.

If you have news or views relating to AEDA or of interest to AEDA members, please send it to David Salt, dsalt@cres.anu.edu.au

(Please note that David Salt works Wednesday to Friday.)

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