NEWS FROM THE ECOLOGICAL SOCIETY OF AUSTRALIA

Ecological Society of Australia's report to the New Zealand Ecological Society

By Robyn Sinclair
Robyn is a New Zealander currently living across the Tasman. She is completing her Masters with Lesley Hughes at Macquarie University in Sydney, working on the evolutionary ecology of leaf mining insects www.ecolsoc.org.au/What%20we%20do/Prizes/documents/RobynSinclairPoster.pdf

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Hi everyone,

ESA 2006 this year in Brisbane was a roaring success. As always it was hard to know which session to go to! Susan Timmins (DoC) did a fantastic job of promoting our upcoming ESA/NZES conference, and we'll all looking forward to a lovely Wellington spring. Back to Brisbane, we had a large opening plenary which included talks by seven top research in climate change ecology each tackling a different ecosystem. One of the highlight (particularly for student) was the pub ecology debate at University of Queensland's Red Room bar. The topic discussed was biodiversity trading. The panel were Hugh Possingham (Professor of Ecology and Mathematics), John Quiggan (Professor of Economics) and a representative of the NSW Department of Environment and Conservation, or as described on the night, the "man on the ground". The discussion was recorded and played on ABC radio "Big Ideas" program, and if you'd like to know the outcome of the discussion, it can be downloaded from www.abc.net.au/rn/bigidea/. Follow the link "More Summaries" (bottom of the page) and then scroll down to Café Scientific: Biodiversity Trading.

There is another upcoming conference which we thought you might be interested in. The Association for Tropical Biology (ATB) will be holding its annual conference in Kunming, China, on July 18–21 2006. There are a number of interesting symposia planned (http://atbc.xtbg.ac.cn/symposia.shtml). One is 'Large scale restoration of tropical ecosystems', convened by Carla Catterall and John Kanowski, (both ESA members) who are encouraging contributions from a range of countries and ecosystems. For more details, you can contact John on j.kanowski@griffith.edu.au.

Once more that's the end of this edition. More details of the ESA, our 2005 conference and our members can be found on our website, www.ecolsoc.org.au or by emailing me on rsinclai@bio.mq.edu.au.

ECOLOGY STUCK ON THE WEB

5: Open source software can be your friend

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The other day I mentioned the excellent internet browser, Firefox, to some esteemed members of our society. I was a little surprised to learn that most people didn't know what Firefox was. That got me thinking. Many of you fine newsletter readers may be unaware of all the useful "open source" computer programs like Firefox that are now available as free downloads on the web.

In summary, open source software is free. In detail, open source software is software that makes its source code freely available for improvement. That means that clever computer programming people who use the software are free to look under its hood and make improvements. Popular open source software that is backed by a large community of users can improve very quickly, and several open source projects have been running for many years and are now very good (see below for examples). A study by Damien Challet and Yann Le Du of the University of Oxford (reported in Nature News (2003, doi:10.1038/news030623-6) has even suggested that open source software is more efficient at fixing bugs than commercial software.

I am certainly not the kind of person who downloads software source code and improves on it. I would guess you are not either. That does not stop us from downloading and using a lot of excellent, free open-source software.

Here are a just few of them, all available on the web for Windows, Mac, and Linux users.

Firefox (www.mozilla.com/firefox/)
Firefox is a popular internet web browser, analogous to Microsoft's Internet Explorer or Apple's Safari. Firefox has won all sorts of awards and is quickly gaining in popularity. Last month 12% of visitors to the NZ Ecological Society website viewed the website with Firefox, compared with <1 % two years ago. It's fast, secure, and does snazzy thinks like tabbed browsing, where you can open several websites in a stack of tabbed pages within one window (difficult to explain but very useful). If you spend a lot of time on the web, it's well worth a try.

OpenOffice (www.openoffice.org)
OpenOffice is the leading open source equivalent of Microsoft Office and is a close relative of Sun's StarOffice. OpenOffice contains a word processor, a spreadsheet, a presentation program, a drawing program, and a database program. It is many years old now and is a feature-rich and capable (and free) alternative to Microsoft Office (if you need or want one). OpenOffice opens Microsoft Office files fine. I've even found that OpenOffice opens Word documents from PC-users substantially better than does my version of Microsoft Word for Mac. If you're looking for office software, you might also want to check out AbiWord and the excellent Gnumeric from the GNOME office project (www.gnome.org/projects/).

R (www.r-project.org)
R is an open source statistics program related to the commercial S-Plus. You work with R by typing in commands so getting started in R is a bit like learning a new language. That effort is well worth it as R is excellent. There is a large and growing on-line community of R users and several books and online tutorials are available for help. R is growing in popularity among ecologists and there are useful ecology-specific "packages" that have been written to add ecological functions to R. If you are not already entrenched in a favourite commercial statistics program, give R a try.

GRASS (grass.itc.it)
GRASS is to ArcGIS what OpenOffice is to Microsoft Office. It is a mature, feature-rich open source Geographic Information System (GIS) program. If you need to do more than just look at maps with Google Earth (earth.google.com) or MapToaster (www.maptoaster.com) and you or your institution cannot afford a license for ESRI's ArcGIS range of products, check out GRASS. GRASS has the added advantage of connecting with R.
That list just scratches the surface of what is available. I haven't mentioned Apache (httpd.apache.org) and MySQL (www.mysql.com), the server and database programs that drive many of the world's websites. There's also LaTeX (www.latex-project.org), a typesetting language that separates content from typesetting and generates glorious quality documents. Then there's GIMP (www.gimp.org), the leading open source image manipulation software, analogous to Adobe Photoshop, which recently celebrated its tenth anniversary. You can even run all this on Linux, a completely open source operating system, for which there are now a number of quite elegant and friendly user interfaces.
My intention is not to say that open source software is the best. Some of it can be more technical to install and more difficult to use. There is also great commercial software out there to choose from. But it can pay to think outside of the beige box. In this age of the internet and open source software, there is no excuse to be restricted to the software that came with your computer when you bought it.