CSIRO first published Ecos in 1974, a time when the Whitlam Government was in power and issues such as environmentalism, Aboriginal land rights, workplace equality for women, the abolition of conscription, free tertiary education and multiculturalism made the transition from fringe to mainstream. It was the year Australian banks launched Bankcard, Cyclone Tracy hit Darwin, Mungo Man was discovered, and President Richard Nixon resigned over the Watergate scandal.

However, while environmental activism was ramping up in the ‘70s, the level of environmental literacy was still low. Environmental rounds on daily newspapers were non-existent.

Against this background, Ecos was launched. In a foreword to the first issue, then Chairman of CSIRO, J.R. Price, wrote: ‘CSIRO does not make the decisions on how environmental matters should be managed. This is the role of governments, private industries, and people in many walks of life. However, to do this effectively they need ready access to existing scientific knowledge. I believe CSIRO should let them have the facts it has to offer, in a lucid and balanced way.’

That first issue of Ecos carried a story on a CSIRO project to measure CO₂ levels in the atmosphere. The writer, Bob Lehane, noted that CO₂ levels in 1974 were 320 ppm (parts per million), up from 280 ppm in 1880 (they are currently around 385 ppm).

On re-reading that story, what struck me was the sense of struggle the scientists involved had in coming to grips with complicated atmospheric processes,’ said the first Editor of Ecos, Brian Woodruff.

Bob Lehane, who succeeded Woodruff as Editor in 1980, says he saw the editor’s role as packaging together ‘an inviting mix of stories – detailed, brief, sometimes quirky’.

‘Apart from that report on the latest atmospheric CO₂ measurements, issue 1 included a lengthy article on pollution in the Derwent River and a short piece on prospects for replacing exotic grass lawns with native grasses. Subsequent issues

Browsing through back issues of Ecos is a rewarding activity for anyone interested in the evolution of environmental and sustainability issues over the past 35 years. Here are some highlights from the past 149 issues.

Ecos 1 (1974)
‘Toxic metals in Tasmanian rivers’, also potential impacts of uranium mining in the Top End.
led with stories on remote mining towns, sulphur dioxide pollution, and salinity in Western Australia."

Bob recalls that when CSIRO commissioned an external review of Ecos in 1986, it found ‘a universal appreciation of the high quality and high standard of publication’ among readers.

‘One hopes Ecos had, and continues to have, an incremental impact for good on the nation’s scientific and environmental literacy,’ he says.

The ‘90s: environment missing in public debate

From 1993 to 2003, under the editorship of Bryony Bennett, Ecos began to slowly broaden its focus from CSIRO to include other areas of national environmental research. This was also the decade when the environment was not high on the agendas of either business or government.

In her editorial for Ecos 100, published in 1999, Bryony noted that ‘many of the problems covered in the 1970s are still being studied today’, pointing to the problem of heavy metal pollution in Hobart’s Derwent estuary, which featured in issues 1, 50 and 100.

Issue 100 also featured analyses by senior CSIRO scientists on the status of the environment at the time. CSIRO Wildlife and Ecology Divisional Fellow, Doug Cocks, wrote: ‘The environment has come and gone as an issue in recent years … it is not high on any political agendas. This is illustrated by the fact that both main parties fought the last federal election with barely a mention of the environment.’

Dr Wayne Meyer, Sustainable Agriculture Program Leader at CSIRO Land & Water at the time, wrote an article entitled ‘The water eaters’ in which he pointed to the problems with flood irrigation agriculture in the world’s driest inhabited continent. ‘We are one of the few countries in the world that can still afford, or allow, water to be applied to large areas of pastures in what are often little better than transient floods,’ he wrote.

Wendy Pyper, Associate Editor from 2000 to 2002, recalls Ecos as being ‘great fun to work on because of the variety of CSIRO research, and the internationally renowned calibre of both the research and scientists’.

In the same issue, then Chief of CSIRO Forestry and Forest Products, Dr Glen Kile, wrote about the prospects of using forestry residues for biofuels and of using forest plantations as carbon sinks.

Wendy Pyper, Associate Editor from 2000 to 2002, recalls Ecos as being ‘great fun to work on because of the variety of CSIRO research, and the internationally renowned calibre of both the research and scientists’.

‘One of the more memorable features I worked on, due to the enormity of the task and the important concepts it put forward, was the Wentworth Group blueprint for change, which championed Australian approaches to sustainable land use, rather than European models.

‘The feature was a fitting addition to a new-look Ecos that heralded a broader focus on the increasing importance of research into economic, social and environmental sustainability.’

Thanks to Bryony’s efforts, Ecos won a Banksia Environmental Foundation award for communication in 2000.

Ecos 14 (1977) ‘Spray cans and the ozone layer’: Fluorocarbons in the form of spray-on deodorants, hair sprays, etc. were being investigated as the main cause of ozone depletion in the upper atmosphere.

Ecos 23 (1980) included a story on carbon dioxide levels and crop yields.

Ecos 38 (1983) documented CSIRO’s fire research, including bushfire control by aerial water bombardment, and use of infra-red technology to track fire fronts from the 1983 Ash Wednesday fires.

Ecos 49 (1986) ‘El Nino and prospects for drought prediction’: Scientists investigate use of the link between the El Nino Southern Oscillation index (ENSO) and weather to predict drought and floods. As the Cold War was drawing to a close, national insecurity was still evident in the story ‘Nuclear winter down under’.

Ecos 53 (1987) The formation of the Murray–Darling Basin Commission brought optimism about the basin’s future — salinity was of greatest concern. ‘New strategies in the rabbit war’ highlighted the role of dingoes, feral cats, foxes and eagles in keeping rabbit numbers down.

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Embracing sustainable development
In 2002 James Porteous was appointed as Managing Editor to re-design, re-launch and re-position *Ecos* as a sustainability magazine, rather than a title focused predominantly on CSIRO’s environmental science research. The aim was both to enhance the opportunity the magazine had to promote advances and solutions to environmental and social challenges being achieved by a wider range of organisations, and to engage a more general audience.

‘Eight years ago, CSIRO, to its credit, saw that the environmental agenda had moved into the mainstream and was going to have much more general engagement. “Sustainable development” had matured as a concept, drawing in under it the overlap of environmental science with economics, governance, technology and social development.

‘The time was right to broaden the platform from which *Ecos* could do its job as a publicly funded magazine – encourage greater understanding and debate by providing the Australian community with reliable background on emerging environment-related issues from a research perspective,’ James says.

‘In 2009, when a range of central issues are pressing – such as energy use, waste volumes and water scarcity – it is more important than ever before that individuals are informed and engaged in the range of related issues so they can be personally responsible for effecting change.’

‘The research community, too, needs to identify developments and where it can work together. *Ecos* helps facilitate that, so its role is valuable.’

From that point of view, it is also important that *Ecos* has a positive solutions-based stance – showing where challenges are being met with innovation.

‘There’s plenty of gloom and doom out there – reading about progress and solutions is much more motivating. Even dire situations can have fantastic positive angles,’ James says.

Taking into account *Ecos* is publishing its 150th issue after 35 years of coverage, the magazine’s archive represents a valuable historical register of the evolution of key issues. The most prominent of these in today’s context would be the human contribution to climate change, but also includes biodiversity loss, fire management, logging, the uranium debate, fisheries and marine conservation, the evolution of environmental science with economics, governance, technology and social development.

Ecos has revisited key environmental issues over the years, including climate change. Issue 53 (1987) included this story reporting on consolidation of scientific evidence pointing to a general global warming trend. ‘It has become a matter of how to predict the regional details of these changes, rather than determining whether or not they will occur,’ the story suggested.

MILESTONES IN SUSTAINABILITY SCIENCE

**Ecos 68 (1991)**
‘How high could the sea rise?’ discussed the uncertainties involved in predicting the extent of sea-level rise in coming decades. The issue also featured the CSIRO’s Plascon plasma arc furnace that could completely break down toxic substances such as PCBs in temperatures of 10 to15 000°C – hotter than the surface of the sun.

**Ecos 84 (1995)**
‘Ceasefire at Kapalga’: Two decades of ecological research drew to an end with the closing down of CSIRO’s Kapalga tropical science site in the Northern Territory. Also, scientists assisted in conserving the 200 000 tonne-a-year hilsa fishery in Bangladesh – which employed 2.5 million, and was the single most important food fishery for the country’s 200 million people.

**Ecos 99 (1999)**
‘Greenhouse effects’ feature section – threats to Australia’s unique arboreal mammal species, to coral reefs and to agriculture, and the likely southward migration of cyclones. How Melbourne could recycle its wastewater, the sensitive issue of koala conservation, and the science behind shark tagging.

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of renewable energy technology and agricultural science innovation.

‘I’ve had the privilege of seeing some significant evolution in the environmental agenda over the last seven years,’ James highlights. ‘The most significant would have to be that climate change has become a critical issue. Associated with that is the fact that carbon has acquired a price, which is being factored into every economic level. More broadly that means the economy has made a major transition, in now accounting for environmental impacts. By implication, water, waste and issues such as land clearing now have wider costs.

‘That this has forced an awakening, albeit slow, to the importance of corporate social responsibility is another significant milestone. The unexpected financial benefits that organisations realise through commitment to positive environmental and social contributions are an inspiration,’ James says.

‘The rise of private land conservation and social change movements, the rapid evolution of solar and renewable technology, the central role that IT is playing in facilitating “live” international conservation and research efforts, and most recently, the arrival of mainstream electric vehicle sales, have been some highlights.’

From here, Ecos plans to keep evolving with the times, tracking the fast-moving spectrum on sustainability issues. ‘There are some challenges in the tensions between print and internet publishing out there in the market – but I see them as great opportunities for viability,’ James points out.

‘After all, the internet immediately takes important content to the world.’

Loyal subscriber community

Results from a 2007 reader survey suggest that many in the Ecos readership have been subscribing to the magazine for years, and even decades.

We contacted a subscriber who has been with us since 1975. Kevin Bott lives in the small town of Durham Lead, near Ballarat, Victoria.

Kevin grew up on a farm in Gippsland before training as an outdoor education teacher, travelling around Australia, then working in Aboriginal communities in the Northern Territory and aid programs in the Pacific, as well as in mining, mud-brick house construction and beekeeping.

He discovered Ecos at issue 6 and has been an ‘avid reader’ ever since. ‘I like Ecos because it gives the facts, and publishes ongoing research,’ he says.

‘There is so much information on the environment around in print or on the computer. To get a balanced picture you’ve got to read so much, from so many points of view in one area. To get to the “truth” you have to research things.’

‘With Ecos you can take what is there as having been well researched. I feel I can quote it. I’ve kept every issue – and I’m very careful about loaning them out.’

Thank you Kevin and all our subscribers, readers and supporters. Ecos will continue its record of providing compelling, credible and in-depth perspectives on current issues in sustainability – in print, online or wherever the next 35 years takes us.

Ecos 117 (2003)

As ‘peak oil’ announced itself as a legitimate issue, ‘Towards the forever fuel’ was a stock-take of the relative promise of alternative fuels, including hydrogen. The debate about whether the high country should be grazed returned, and in a major research report CSIRO reinforced that our business-as-usual lifestyles and thinking were ‘unsustainable’.

Ecos 130 (2006)

Ecos led the main media with a prescient story on the imminent ‘Clean tech’ boom that had ignited overseas, and showed how Australia could miss catching the wave. There was also an early report on the probable dangerous elements of climate change arising sooner than had been previously expected by climate researchers.

Ecos 147 (2009)

‘Global CO2 drawdown’ examined the limited options available to rapidly withdraw carbon dioxide from the atmosphere to halt global warming, and the dingo shifted from foe to friend again for its role in ‘sheltering’ native mammal populations from cat and fox predation. There was also a review of mainstream ‘green beers’, organic and ‘low carbon’ to boot – who would’ve thought!

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