

# Science in the Pub goes Outback

—by DC3 for National Science Week 2000

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**S**o rural and regional Australia are missing out! Not only is the economy down, these communities rarely get to meet and greet real scientists. With this as the incentive, Robyn Stutchbury set about finding ways to take a team of scientists to a number of centres under the banner of *Science in the Pub goes Outback*.

How do you persuade a group of busy researchers to put aside their work so that they could join in the celebration of science in Australian outback towns for a week? The answer: pile them into a vintage DC3 and whip them around to some of the most beautiful parts of Australia. The group of 17 scientists and science communicators dropped everything to visit Broken Hill, Birdsville, Longreach, Charleville and Bourke for a day or so of science festivities in each town.

And it wasn't all beer and skittles! Presenting six different events within a period of not more than 48 hours and mostly 24 was no mean feat. Although *Science in the Pub* featured in each centre (and Australia is known for its great outback pubs), we also offered *Science in the Bush*, *Starry Starry Night*, *Science meets the Arts*, School of the Air broadcasts and school visits.

**Science in the Bush** had its highlight in Birdsville when Rachel Nowak, Australian Editor for *New Scientist*, presented Clio Cresswell, mathematician from UNSW and PhD student, Branwen Morgan from the Garvan Institute to talk about the functioning and mathematics of the human brain. Why was this a highlight? We had driven the 25 km from Birdsville northeast to

Roseberth, one of the oldest and largest properties in the district, in a six-wheel drive along the red-mud roads flooded by overflow from the Diamantina River following the record rains of last season.

Added to that, the audience at Roseberth sat outside bathed in sparkling sunshine and overlooking the flooded Diamantina in its setting of the vast outback landscape as we listened to Branwen and Clio. Owners of Roseberth, Bev and Geoff Morton, treated us to dinky-di outback hospitality.

**Starry Starry Night** became a real hit. Essential equipment included an outback moonless and cloudless night; the likes of astronomer-entertainer, Fred Watson; star amongst stars, astronomer-photographer David Malin; Australian composer Ross Edwards; aboriginal Dreamtime storyteller, Don Rowlands from Birdsville, and a compere with the presence of Wilson da Silva.

For the Birdsville session, the audience lay dreamily on their backs gazing at the wonders being explained to them by Australia's leading astronomers, Fred, David and Michael Burton. Don told us about the emu dreaming and Ross' music thrilled and sharpened our senses. Fred then sang his own 'starry' compositions, accompanying himself on his guitar. A repeat of this session in Charleville had the added advantage of their newly appointed Galaxy Theatre and the Outback Queensland Skywatch Program together with a team of astronomy enthusiasts.



Robyn Stutchbury (r) introduces, from left, Rachel Nowak, compere and presenters Branwen Morgan and Clio Cresswell to the *Science in the Bush* audience at Roseberth Station near Birdsville.



Fred Watson sings to the stars and other heavenly bodies



From left, Fred Watson's ideas don't seem to hold much water for compere Wilson da Silva, David Malin and Bernie Hobbs at the Corone's Hotel, Charleville Science in the Pub session.

**Science in the Pub** somehow managed to stage a session in each centre, fortunately using sound equipment acquired and operated by Abbie Thomas. The Silverton Pub, famous for its many appearances in films such as *Mad Max* and *Priscilla, Queen of the Desert*, featured stars of science, Ian Plimer and Fred Watson who discussed *Life, the Universe and Everything!* with Paul Willis, compere and Bernie Hobbs as she cajoled the audience into participating. Our Birdsville Pub session, *Greenhouse warming is a lot of hot air!* attracted 10% of the population. Yes, all 10 of them turned up! However, the audience was swelled by a few lost travellers and of course our own contingent. For this audience, science star, Ian Lowe joined Wilson da Silva to argue climate change and greenhouse warming with Paul and Bernie once again doing their 'thing'.

At the Longreach Commercial Hotel session, again *Greenhouse warming is a lot of hot air!* we were joined by local scientists, Kate Andrews, CEO, Lake Eyre Basin Co-ordinating Group and Andrew White, Department of Primary Industries who discussed climate change and local effects with Ian Lowe, Environmental Scientist, Griffith University ... and yes, Paul and Bernie.

In Charleville we had a ball at the famous Corone's Hotel with another

session of *Life, the Universe and Everything!* starring our starry stars, Fred Watson and David Malin. Wilson stepped into the compere's chair assisted by Bernie who encouraged audience comments and questions. Our final session in Bourke on the Darling River was at the Port of Bourke Hotel. For this session we

dared to take a look at *River of Dreams? ... or Nightmares?* Ian Lowe was joined by Ian Cole, Chair of the Cotton Authority, Bourke to discuss some of the environmental concerns of using water from the Darling River to irrigate and the effects this has downstream. Paul and Bernie were back on deck for this session.



Macquarie University biologist, Noel Tait tried desperately to convince the kids that invertebrates are as cute and cuddly as kangaroos and koalas. He pointed out the endearing features of his little beasties through the lenses of his travelling microscope. His missionary zeal converted a few, but not all of these Birdsville school pupils.

**Science meets the Arts** demonstrated the continuum between science and the arts, using music and photography. Fred Watson took on the role of compere to explain to the audience how astronomy and other natural science inspire the music of Ross Edwards, renowned composer of *Dawn Mantras* that we all heard performed from the roof of the Opera House as dawn broke on the Year 2000. His video of this event completely captivated our outback audiences. David Malin's superb transparencies were used to explain his unique technique for producing colour photographs of astronomical phenomena. His latest book *Invisible Heavens* was a big attraction and Ross couldn't keep up with the demand for the CDs of his music.

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School visits and School of the Air (Distance Education) broadcasts were the biggest hits for the entire team. In each centre, astronomy communicators Mel Hulbert and Tim Kennedy stole the show with school groups. Their secret? The portable telescopes that could be used to see sunspot activity. Mel's was provided by the Powerhouse Museum's Sydney Observatory and Tim's by courtesy of the Narrabri Observatory through the CSIRO. Here a group of Birdsville school pupils discuss the sunspot activity that they have seen through the telescope with Tim Kennedy and Mel Hulbert.

**Special relationships** Even though our tremendously popular science festival events were the focus of Science in the Pub goes Outback, one of the most satisfying outcomes of the entire venture was to observe the relationships that developed between the scientists. Astronomers huddled together with biologists, and medical researchers with mathematicians. Musicians couldn't believe that scientists were such nice people! The DC3 offered wonderful opportunities for different discussions with different people as we hurtled through the air, sometimes at no more than 5000 feet above the ground. Many admitted that our adventure was a 'life-changing experience'.

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packer style accommodation in some centres was seen as part of the adventure—although there were those who suggested that next time around an upgrade to at least one-star accommodation might be somewhat more appropriate!

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**The DC3 team** of Captain Jack Curtis, Captain Gordon Power and 'Hostess' (historical!) Sue Griffiths were great fun and thankfully, skilled flyers. Jack's age considerably exceeded that of the 60 year-old DC3! It was easy to justify the use of the DC3. Not only was it attractive to everyone, but for a cost of under \$3,000 per person, we managed to transport and accommodate our team. Compare this with commercial flights over such distances and to such remote centres. Those of the team with previous lecture tour experience commented on the wonder of being free of airport terminals, delays, traffic jams on the way to sterile hotels and other inconveniences. Even the back-

**Funding** So where did the money come from? We were fortunate to receive STAP funding of \$15,000, and that was about a quarter of what was required. The University of NSW generously contributed a further \$15,000 through the Faculty of Science and Technology and the U Committee. The Garvan Institute, the Australian Mathematics Society, Macquarie University, the Sydney Observatory (Powerhouse Museum), the CSIRO Australian Telescope National Facility, and New Scientist Magazine each contributed to the cost of a team member. Altogether an amount of around \$46,000 was raised. This was some \$14,000 short of our target. The short-fall was overcome through sometimes generous assistance with on-ground costs by many of the centres and by none of the team expecting to be paid professional fees.



No hotel transfers or taxi costs here! The DC3 pulls up right outside the Birdsville pub.

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In Longreach we 'clashed' with the local show week. This was put to great advantage when local science communicator and consultant, Jane Harvey set up a Science Festival stall. Our scientists and communicators took shifts to demonstrate their particular science passion to the visiting school groups. Here a group of school visitors share some science fun with outback team members, David Malin and Melissa Hulbert at the Longreach Show.

**Will we do it again?** Not without sufficient funding up-front! There were a number of sponsorship opportunities lost because of delays in receiving the initial funding. Further, many of the outback centres were willing to call for financial assistance through a

number of government and commercial sources, but by the time the STAP grants were announced and plans put into action, it was too late for these centres to apply. For another Science in the Pub goes Outback venture to be staged there would have to be a concerted effort to co-ordinate each participating centre with the basic organisation from the start. A scout trip to each centre would be essential if this were to be implemented.

**The stars of the show** Science in the Pub goes Outback would never have been the success it was without the real stars of the show. All agreed that it was a wonderful opportunity to learn some new science, meet some great people and share their enthusiasm for their science with such a diverse cross section of Australians. Here are the stars.



From left to right: Dr Michael Burton, astrophysicist, UNSW and co-organiser of Science in the Pub; Robyn Stutchbury, project manager and science communicator, Peripatus Productions Pty Limited; A/Professor Noel Tait, invertebrate zoologist, Macquarie University; Captain Gordon Power, pilot, Dakota National Air; Mr Ross Edwards, Australian composer; Dr Fred Watson (waving), astronomer, Anglo-Australian Observatory; Dr Clio Cresswell, mathematician, UNSW; Professor David Malin, photographer-astronomer, Anglo-Australian Observatory; Professor Ian Lowe, Science, Technology and Society, Griffith University; Dr (almost!) Branwen Morgan (sitting), Garvan Institute for Medical Research; Ms Sue Griffith, 'hostess' Dakota National Air; (trio above Sue) Ms Bernie Hobbs, ABC Online and Triple J; Mr Wilson da Silva, Science journalist, Ms Abbie Thomas, ABC Online; Dr Rachel Nowak (in red, sitting) Australian Editor, NewScientist; Ms Melissa Hulbert, Sydney Observatory; Dr Paul Willis (behind, in hat) ABC Quantum reporter; Mr Tim Kennedy, Australian National Telescope Facility; Ms Kersten Davis, Outback liaison; Captain Jack Curtis, chief pilot, Dakota National Air.