

Newsletter of Echidna Care

Puggles Post



JUNE 2003

Life in the green lane...

There has been a TV series running here in Australia called 'Grass is Greener'; it is about a city family who want to live in the country and a country family who lust after the city- so they swap homes. Familiar feeling? How many of us have come away from the Pelican Lagoon Research Station on Kangaroo Island having spent a week or two with resident biologists Peggy and Mike wishing we could swap the mayhem of an urban lifestyle for the peace and tranquility of a field researcher? Well think again!

It is a myth that field researchers spend their life in the field discovering new and wonderful things. On the contrary, more often than not, these observers of the natural kingdom can be found slumped, bleary eyed in front of a computer applying for

research grants to enable them to be able to afford to go back out in the field and do what they are supposed to be doing in the first place.

As Peggy explained, "When you work in the field you either have equipment that constantly need to be replaced or repaired, or you have to travel to different locations for specific study. The money has to come from somewhere. So you have to be financially very creative."

Grants are one of the main sources of finance for a field researcher. But grants are few and far between and much time is spent finding out who is offering what and where. Once a grant has been tracked down then it's all paperwork from there on. "Some grant applications may only require a 4 page summary while others can take weeks to

prepare", said Peggy. "We find out about grants through word of mouth and sometimes they may be posted on the web. There are also the long-standing ones like the Wild Life Conservation Fund here in Australia or US Nature.

"You usually have to be very specific about how you are going to use grant money -it's not open slather. If the grant is for equipment, repairs and day to day running of a project you will

have to provide information on the sort of equipment you are going to buy and exactly what your running costs are going to be. You often have to provide progress reports and then at the end of the grant there is a detailed report to submit on

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your research findings.

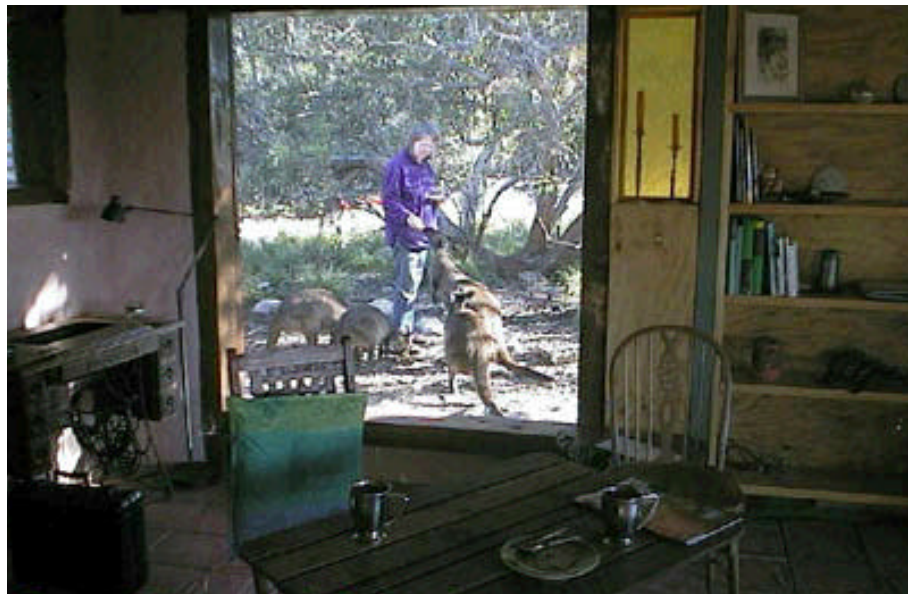
"It feels like I spend 50% of my time just doing paperwork", said Peggy. "Perhaps, realistically, it is more like 30% but it still is a good portion of my time. But unfortunately there are certain things that only I can do. Our field volunteers help free up my time so I can be in the office -it's a great help but it means they are in the field where I would much rather be.

"Most grants are usually for a short term - a year or maybe two at the most - despite the fact that the organisations providing the grants know you can't get con-

clusive results in just one year. In an ideal world I think a grant should be for between 5-10 years", said Peggy. "If you doing serious conservation research then it seems an awful waste of time to have to apply and reapply for the same grant every year".

There is another problem. According to Dr Peggy it is quite normal for grantees to hold back an amount of money until they get the

final report at the end of the period of the grant. "This means even though you have the grant -you haven't got the money", said Peggy. "So you have to get the cash from



*Then again some 'offices' are better than others!
Peggy taking a tea break with 'work mates'*

somewhere else". How is a researcher supposed to do this and get their work done? Forty percent or more, of grant funding, can be held back. At one time there was a scheme where grantees withheld 60% of the funding. as Peggy said, "This was totally unrealistic.

"You are constantly battling for money and juggling it when you get it".

Another source of income or equipment for field researchers is through award schemes. "It is good to win an award", said Peggy.

"Although there is a certain commitment to provide some sort of a report explaining what you will be doing with the award money it isn't an extensive report like a grant. You don't have to justify every penny you spend".

Awards can just appear out the blue they aren't heard about on the usual grapevine. So, again, how many awards a researcher can apply for depends on how much time they spend with their ear to the ground - so to speak. "Of course the more you do, the more your work gets recognised around the world", said Peggy. "And then you find these awards tend to come to you".

I ask Peggy if, in a quiet moment, she's ever been daunted by the

prospect of doing this for the rest of her life . "If I was I wouldn't be doing it -when it gets to be daunting is when people change careers", she said. "Of course there are some days you wonder why you are not doing a 9-5 job but then you look around you at other people's lives and you know why you aren't!"

Close encounters with a puggle by Amy Moss



It all happened on a holiday to Jindabyne NSW September 2002. I saw an echidna walk past the door, being my natural inquisitive self; I stepped outside and followed it, very quietly, around the lawn. The echidna, which I later named Spiky (original, I know), walked all over and eventually settled in a hollow log in some scrub. I figured she wanted some privacy and I returned to the house. About fifteen minutes later I came back and found she had moved, after some searching I spotted her under a rock. The thought passed through my head at the time that she could be having a junior Spiky so I waited

on top of the rock.

After about half an hour, I tired of my inactive friend who was yet to emerge and I moved to a rock that had a great view of the next hill. I have no idea how I managed it but I noticed that a tiny black spot, at least two hundred metres away was slowly moving up the hill. I pulled out the trusty binoculars and found what appeared to be a wombat, slightly amused at the wildlife around that afternoon I ran to it. The supposed 'wombat' turned out to be a large echidna, nearly twice the size of Spiky. After feeling somewhat like the echidna whisperer, I

retired to the house.

The next morning we were due to go home, I went to the rock to say goodbye to Spiky, she was gone but I noticed that the surrounding dry grass had been pushed in to cover the entrance. I moved it away and found a cricket-ball sized, pinkie-grey coloured, egg shaped quivering thing that, as I was later informed, was a baby echidna, a puggle. It looked like human skin would look under a microscope, without any spines but tiny circles that looked like hair follicles where the spines should be. It also appeared to be

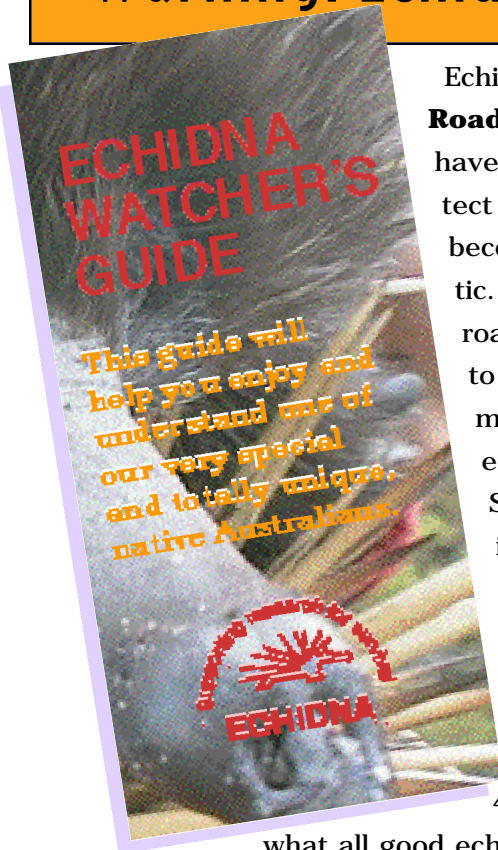


A puggless Amy Moss

in a pulsating membrane. It occasionally moved and was possibly the most bizarre thing I have ever seen.

I was happy for Spiky but she wasn't around to congratulate. Not knowing much about echidnas, I was worried that maybe Spiky had forgotten about or rejected her baby. I covered it back over with grass and was assured by the couple I was staying with that they would contact the local wildlife people and let me know what happened. When they rang the next day, they described to me how Spiky had returned and settled over the puggle much like a chicken would settle over an egg. She walked over the puggle, wiggled around a little bit and when she moved away it was collected in her pouch. Amazing. I got a postcard from Spiky the other day, she and the puggle are doing just fine.

Warning! Echidnas Crossing



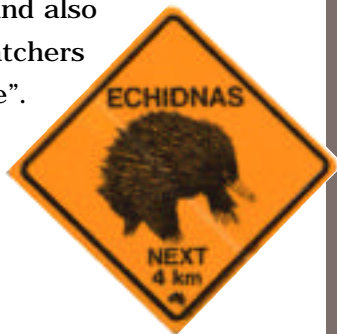
Echidna Care Inc have **Echidna Road Sign Kits** available which have been designed to help protect your local echidnas from becoming another road kill statistic. Put up warning signs on any roads your echidnas may have to cross so you can warn motorists of the danger (to the echidnas!). The Echidna Road Sign Kits cost \$A5 each which includes postage in Australia (please add an extra \$A5 for overseas orders) The kits consist of two yellow plastic signs, 19x19cms, with the wording "Echidnas Next

4Kms" and also

what all good echidna watchers should have-"The Echidna Watcher's Guide".

Echidna Road Sign Kits are available from: Echidna Care Inc. Post Office Penneshaw Kangaroo Island South Australia 5222

Email: echidna@kin.net.au



We're Looking for Caring People to Adopt us..

For many years Earthwatch and Echidna Care have provided a major avenue for community support of Dr. Peggy Rismiller's field work on Kangaroo Island. Many of the people who have become directly involved with this work have shown a strong interest to continue their support by sponsoring individual echidnas. Last year Echidna Care helped set up Adopt an Echidna. The response to this program is helping directly with field work, continual monitoring of individuals and community outreach programs. Later this year some of the sponsors will visit Pelican Lagoon for a special field workshop. We hope to have more people joining the program.

For \$100 you can become an 'echidna parent'

Adopt an Echidna Programme was launched last year. We are looking for schools, organisations, companies or individuals to adopt us. "Official" Echidna Adoption papers will be sent to our new 'parents' and you receive a regular update about what we get up to. All adoption fees will be used for further research by Dr. Peggy to find out what makes us tick!

Echidna Care Inc. Adoption Agency

P.O. Penneshaw, Kangaroo Island
South Australia 5222

Email: echidna@kin.net.au

...please don't eat our loggers!

Termites are to buildings what chocolate is to a block of Dairy Milk. It has been said that up to 1 in every 3 houses in Australia will be effected, at some time, by termite infestation. The problem is world-wide.

Part of working with echidnas and goannas at Pelican Lagoon requires the study of termites - echidnas eat them and goannas lay their eggs in their mounds. Finding out what is happening within the depths of a termite mound does have its inherent problems; any sort of logging or recording device placed within, promptly ends up on the termites' dining room table. Loggers cost money. But thanks to one of those serendipitous moments in life, Peggy and Mike were brought into contact with a company called Termimesh.

Termimesh make a very fine, marine grade, stainless steel mesh that no matter how hard they try, termites cannot get through. Little pockets of Termimesh were made for Peggy and Mike to house their loggers and these were then placed within the termite mound. Imagine having a block of chocolate in full view on your dining room table and no matter how hard you tried you



Straight into the 'lion's den'...a logger safely tucked up in a pouch of Termimesh being placed inside a termite mound



couldn't ever open it; personally I'd call that torture. But it worked -for the field researchers at least- their loggers have remained intact.



Good news! It's all still there after weeks in the termites' inner sanctum

The Termimesh company has just celebrated its 10th anniversary. It was started by a concerned pest controller in Western Australia - Vic Toutountzis. Vic was concerned about the amount of chemicals used to protect new buildings from possible termite infestation. So he came up with an alternative -a physical barrier. Termimesh is put in place just before the building's concrete slab is poured. The mesh has been tested in some pretty rigorous conditions by the CSIRO before being launched on to the market. The company has now expanded overseas with installations in Asian and North American.

Capital punishment in the field

A recent article in Adelaide's Advertiser newspaper by environment reporter Andrew Dowdell has brought to the attention of the South Australian public yet another life threatening problem for the echidna. Here is an excerpt -

Electric fences have joined dogs, feral cats and cars as a threat to Kangaroo Island's echidnas. Echidna expert Dr Peggy Rismiller says the electric fences were built to protect Tasmanian blue gum plantations. Instead they are killing the mammals.

Dr Rismiller said it was difficult to know how many had been electrocuted but the fences were a major problem.

"When echidnas touch something like an electric fence, they do not recoil like most animals, they bore on ahead", Dr Rismiller said. "The electric wire hits their head and fries their brain and is the end of them."

National Parks and Wildlife acting regional manager Lisien Loan said the service had worked with plantation owners for a year to fix the problem. "It was happening to begin with, but isn't anymore", he said. "The lower wires of the fences were taken off and they now use other alternatives."

But Dr Rismiller said while, "steps were being taken in the right direction", echidnas were still being electrocuted. "Just three weeks ago I had a call from a farmer who had found a dead echidna on an electric fence," she said.

"The farmers, in particular, are very concerned about the numbers of echidnas getting killed." But many Kangaroo Island residents were reluctant to talk over the problem.

But this is not a problem unique to Kangaroo Island, on the contrary this problem stretches right across Australia -wherever electric fences are installed. Just ponder upon this thought - a mammal as unique as an echidna that has managed to survive whatever nature has dished out over the past 140 million years is literally being stopped in its tracks by two inventions less than 200 years old- the car and electricity.

Echidna Care Membership

Has your membership lapsed? Or would you like to make a research donation? Know someone who wants to join Echidna Care Inc?

Membership fees for Echidna Care are for a 12 month period.

There are several membership categories

- **Standard-Individual** **\$15**
- **Student/pensioner** **\$10**
- **Group Membership** **\$25**
- **Overseas** **\$A25**

Please send your fees or donations to:

Echidna Care Inc.

Post Office Penneshaw

**Kangaroo Island South Australia 5222
South Australia**

All Echidna Care membership fees and donations are used to purchase field research equipment for Dr Peggy Rismiller's echidna research on Kangaroo Island and for community education programmes.

Pelican Lagoon 2003 Calender

CVA	July 14-18 Fieldwork
EC	July 19-20 Echidnas
EW	August 2-15 Echidna & Goanna Fieldwork
EW	August 30-September 12 Echidna & Goanna Fieldwork
EC	September 20-21 Native Food & Resources Workshop
CVA	September 22-26 Fieldwork
EW	October 4-17 Echidna & Goanna Fieldwork
EC	October 22-23 Echidnas
CVA	October 27-31 Fieldwork
EC	November 19-22 Penguin Study Group
CVA	November 24-28 Fieldwork
EW	December 13-19 Student Challenge Program for year 11

Australian contact phone numbers and addresses:

EW-Earthwatch Email earth@earthwatch.org.au
Phone 03 9682 6828 126 Bank Street South Melbourne Vic 3205

EC-Echidna Care Inc. Email echidna@kin.net.au
A/hours 08 8553 7174 P.O Penneshaw Kangaroo Island SA 5222

CVA -Conservation Volunteers Australia (formerly ATCV)
Ph 08 8212 0777 130 Franklin Street Adelaide 5000

Echidnas

Echidna Discovery workshop with Dr. Peggy at Pelican Lagoon, Kangaroo Island. Exploring a variety of echidna habitats and learning how the echidna fits into the living circle of these dynamic systems. Two days of experiencing the bush from the viewpoint of one of the planets longest surviving mammals.

Native Foods and Sustainable Resource

These workshops are a hands on experience with the economics of nature. Learn to identify valuable natural assets, to establish resource bases and realise native economic potentials. Exchange ideas with people who have been in the business for more than twenty years.

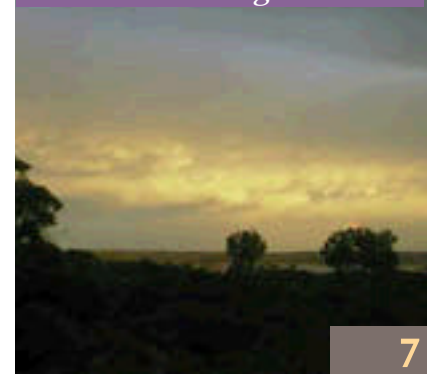
Penguin Study Group

This field survey on life history/population of penguins is conducted by a Penguin Biologist Studies begun on Kangaroo Island in 1990.

Additional Workshop and Participant Programs throughout the year:

There are a number of weekday workshop and participant programs with the Penguin Study Group. Birdwatching and bird survey programs with resident biologist are available upon request. Applications for the Pelican Lagoon Wildlife Artist in Residence program close 1 December of each year. The one week Work Experience in Field Biology Monitoring and Survey program takes applications for selected projects with current biologist; contact Dr. Peggy Rismiller for details at echidna@kin.net.au.

A stormy sunset at Pelican Lagoon



...making tracks

The US standard railroad gauge (width between the two rails) is 4 feet, 8.5 inches. That's an exceedingly odd number. Why was that gauge used?

Because that's the way they built them in England, and the US railroads were built by English expatriates.

Why did the English build them like that? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gauge they used.

Why did "they" use that gauge then? Because the people who built the tramways used the same jigs and tools that they used for building wagons which used that wheel spacing. Okay!

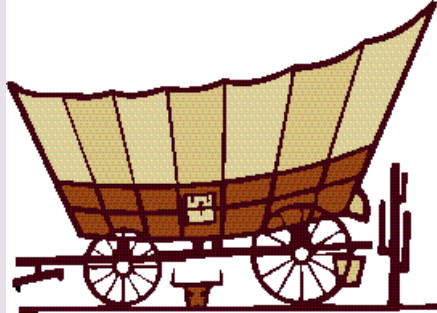
Why did the wagons have that particular odd wheel spacing? Well, if they tried to use any other spacing, the wagon wheels would break on some of the old, long distance roads in England, because that's the spacing of the wheel ruts.

So who built those old rutted roads? The first long distance roads in Europe (and England) were built by Imperial Rome for their legions. The roads have been used ever since.

And the ruts in the roads? Roman war

chariots first formed the initial ruts, which everyone else had to match for fear of destroying their wagon wheels.

Since the chariots were made for (or by) Imperial Rome, they were all alike in the matter of wheel spacing.



The United States standard railroad gauge of 4 feet, 8.5 inches derives from the original specification for an Imperial Roman war chariot.

Specifications and bureaucracies live forever. So the next time you are handed a specification and wonder what horse's ass came up with it, you may be exactly right, because the Imperial Roman war chariots were made just wide enough to accommodate the back ends of two war horses.

Thus, we have the answer to the original question.

Now the extra-terrestrial twist to the story...

When we see a Space Shuttle sitting on its

launch pad, there are two big booster rockets attached to the sides of the main fuel tank. These are solid rocket boosters, or SRBs. The SRBs are made by Thiokol at their factory in Utah. The engineers who designed the SRBs might have preferred to make them a bit fatter, but the SRBs had to be shipped by train from the factory to the launch site.

The railroad line from the factory had to run through a tunnel in the mountains. The SRBs had to fit through that tunnel. The tunnel is slightly wider than the railroad track, and the railroad track is about as wide as two horses' behinds.

So, the major design feature of what is arguably the world's most advanced transportation system was determined over two thousand years ago by the width of a horse's ass. And you wonder why it's so hard to get ahead in this world!

Please pass this E-newsletter on to any person or group you think may be interested. If you are reading this as a 'pass-on' and would like to be included on our regular E-mailing list contact us at echidna@kin.net.au