2005 has been 'Big Mama year' at Pelican Lagoon. The forty-plus-year-old matriarch hit the headlines across Australia back in April when it was revealed that the research centre's most popular echidna was helping the Dairy Cooperative Research Centre (CRC) scientists at the University of Melbourne with their research into boosting returns for dairy farmers. Yep - you read it right. Echidnas have had the dairy scientists intrigued. When an echidna egg hatches the emerging puggle - more like an embryo - weighs a mere 200 milligrams and is smaller than a grain of cooked rice. For the next 50 days the puggle lives in its Mum's makeshift pouch where it suckles from a milk patch. By the end of the 50 days it will be about ten times its original size. Getting too heavy for mum to carry around she looks for a suitable place for a nursery burrow, tucks the puggle in and returns every five days to feed it. The puggle stays in its burrow for about seven months suckling its mum's milk until it becomes big enough to venture out into the world on its own. The conundrum is that early growth and development of mammals normally occurs inside the womb with nutrients being delivered through the placenta - not so with our egg-laying mammal. Everything an undeveloped echidna needs to grow comes from its mum's milk. What's in echidna milk is the challenging question on scientists' lips. Researchers at the CRC believe proteins and peptides, or bioactives, in the milk play a major role in regulating the echidna's growth and development. The scientists are hoping that analysing the genes that control production of the bioactives in the echidna milk may help them identify the genes in cows' milk involved in the lactation process and the production of fats and proteins. This information could result in scientists being able to increase the health and nutritional properties of milk for humans. But how do you milk an echidna?

continued page 2...
First you have to find your echidna! Big Mama was volunteered for the task and as any Pelican Lagoon volunteer will attest to, this shrewd lady can lead radio trackers a merry dance. Once found, Big Mama was taken into the laboratory and injected with oxystosin - a hormone required for milk secretion. Dr Peggy then very gently massaged the milk pads at the exterior of the mammary glands collecting the resulting milk into a pipette - easy! This research project is scheduled for completion by the end of 2007. But there’s more...

It’s twins!

On the 21st of August - a big day at Pelican Lagoon - an Earthwatch team was routinely weighing-in echidnas for the research centre’s field studies and were amazed to discover that not only was Big Mama pregnant - again - she had had a puggle last year - but she had twin eggs; an event never before documented. The unique occasion was celebrated that evening with the opening and drinking of a very special bottle of Australian sparkling white that had been gathering cobwebs in the ‘cellar’ for just such an event.

Big Mama's huge surrogate family worried over how she was going to carry two eggs in a pouch designed for one. And how would she feed them both? But nature took its course and when Big Mama's pouch was next checked there was just one healthy puggle there. At the time of writing this Big Mama has been searching far and wide for a suitable nursery site for her growing babe.

Maybe you would like to adopt this new addition to our echidna family...See page 6 for more details.

Echidnas continue to play their part in advertising products. From the top: an advert for an Australian wine appearing currently at a bus stop near you and in newspapers - the headline reads - “Saving echidnas? I’ll drink to that. The RSPCA has an echidna featured on its give-away bookmarks. When Mercedes wanted to promote the safety features of its new S-Class they decided the echida was perfect. Huge billboards in our city ariports announced “S-Class with Pre-safe. The first car with protective reflexes.
The following questions about Australia, were from potential visitors. They were posted on an Australian Tourism Website and the answers are the actual responses by the website officials, who obviously have a sense of humour.

Q: Does it ever rain in Australia? I have never seen it rain on TV, how do the plants grow? (UK)
A: We import all plants fully grown and then just sit around watching them die.

Q: Will I be able to see kangaroos in the street? (USA)
A: Depends how much you've been drinking.

Q: I want to walk from Perth to Sydney - can I follow the railroad tracks? (Sweden)
A: Sure, it's only three thousand miles, take lots of water.

Q: Is it safe to run around in the bushes in Australia? (Sweden)
A: So it's true what they say about Swedes.

Q: Can you give me some information about hippo racing in Australia? (USA)
A: A-fri-ca is the big triangle shaped continent south of Europe. Aus-tra-lia is that big island in the middle of the Pacific which does not... oh forget it. Sure, the hippo racing is every Tuesday night in Kings Cross. Come naked.

Q: Which direction is North in Australia? (USA)
A: Face south and then turn 180 degrees. Contact us when you get here and we'll send the rest of the directions.

Q: Can I bring cutlery into Australia? (UK)
A: Why? Just use your fingers like we do.

Q: Can you send me the Vienna Boys' Choir schedule? (USA)
A: Aus-tri-a is that quaint little country bordering Ger-man-y, which is...oh forget it. Sure, the Vienna Boys Choir plays every Tuesday night in Kings Cross, straight after the hippo races. Come naked.

Q: Are there supermarkets in Sydney and is milk available all year round? (Germany)
A: No, we are a peaceful civilization of vegan hunter/gatherers. Milk is illegal.

Q: Please send a list of all doctors in Australia who can dispense rattlesnake serum. (USA)
A: Rattlesnakes live in A-meri-ca which is where YOU come from. All Australian snakes are perfectly harmless, can be safely handled and make good pets.

Q: I have a question about a famous animal in Australia, but I forget its name. It's a kind of bear and lives in trees. (USA)
A: It's called a Drop Bear. They are so called because they drop out of Gum trees and eat the brains of anyone walking underneath them. You can scare them off by spraying yourself with human urine before you go out walking.

Q: Will I be able to speak English most places I go? (USA)
A: Yes, but you'll have to learn it first!
About 46 kilometres south of Adelaide is the 300ha Aldinga Scrub Conservation Park - a beautiful coastal sanctuary for animals, birds and insects. It is the home of many rare species of plants and insects. The jewel beetle, Themognatha lessoni was 'discovered' in this scrub. There are many species of butterflies, orchids, and the rare lacy coral lichen, nar-doo and hairy sedge. It is also home to native fauna, in particular echidnas. There is (was) a large open 'meadow' smack bang next to this special place and was also used by the residents of the park. But unknown to them this open space had been zoned residential by the local council; a huge housing development of 691 homes has begun to creep across the land. "It is an eco-tragedy", claimed the many environmental groups in the area. And as the interstate developers moved in so did the protesters. But the echidnas decided it was getting too busy and they moved out. Two were killed by cars as they crossed the road to escape their old home. Six others were rescued from neighbouring premises as they became trapped in an unfamiliar urban environment. It was estimated there were probably only seven echidnas left in the area - that was 12 months ago. "Echidnas do not take well to relocation", Dr Peggy told the local newspaper. "And as urbanisation creeps in echidnas will fall prey to dogs, cats and cars".

Last November a handful of protesters from the Southern Eco Alliance campaigned at the development site. Wanting to draw attention in particular to the plight of the echidna, two women, dressed up in echidna costumes. "Echidnas are supposed to be a protected species but they're not getting any protection", said one of the women. "We dressed and acted like echidnas to signify that this is their land and they have a right to be there", she said. "I was crawling on the ground slowly for an hour when I sensed two officers next to me. They asked me to leave so I began to crawl out of the area, just like an echidna would".

But the two women were arrested for trespassing on private property and went to court in January. One pleaded guilty and received a $500 good behaviour bond. The other pleaded not guilty and her case was scheduled for trial in April. On the day of the trial environmental protesters staged a rally in support. Some dressed-up as echidnas others wore suits and face-masks depicting Environment and Southern Suburbs Minister John Hill. The fake Mr Hills pretended to hit the costumed echidnas with a cricket bat - a protest at what the protesters believed was a lack of action to protect the sensitive Aldinga Scrub by the Minister.

But at the end of the day the court found the 'echidna' guilty of trespass and she was fined $869.

The fight for echidna rights continues.
A couple of months ago a scientist-type person, who shall remain anonymous, said to me, "Feral cats are much maligned. I think there has been an over reaction to them. I doubt as to how much damage they have done". Here are some scientific facts from Kangaroo Island - judge for yourself. Kangaroo Island does not have rabbits or foxes therefore eliminating an important food source for feral cats and an effective predator.

Several years ago Dr Peggy was radio tracking a female Rosenberg's Goanna, Anna Goanna, who had been part of a study population for seventeen years. "The signal came from an area that Anna seldom used", explained Dr Peggy. She was tracked to the entrance of a cat den. Her freshly killed carcass was found with six other dead goannas. All the goannas had been dead for less than six hours and had all been killed with a single bite to the back of the head. Five were known individuals with implanted identification microchips. It seemed that the cat had deliberately stalked and killed the goannas bringing them back to the den for her six kittens. "I sat down and wept that day", recalled Dr Peggy.

The Rosenberg's Goannas are the echidna's only natural predator on Kangaroo Island, taking ten per cent of echidna young each year. But now feral cats take another 25 per cent. But unlike goannas, cats prey on adult breeding echidas. Feral cats have killed six radio transmitted adult echidnas from one study site on Kangaroo Island.

During routine fieldwork a team came across the regurgitated stomach contents of one female feral cat. There was 1 western pigmy possum, 3 thicktail geckos, 1 New Holland Honeyeater, 1 cricket, 1 Eastern Spine bill, 4 mice, 6 skinks, the remains of a wallaby and her nemesis - a tiger snake. She was found dead a short time after from a snakebite.

Controlling feral cats is an emotive problem with environmentalists in one corner and cat lovers in the other. And while the discourse continues, ad infinitum, our fauna are quietly slipping off the map. Can they cope with this additional pressure from another predator?

South Australian wildlife artist Gordon Thurmer has penned a delightful echidna which appears on a blank greeting card. Gordon is offering a pack of six cards to readers of Puggle Post for $9 plus postage. Four dollars of this will go towards research funds for Pelican Lagoon Research and Wildlife Centre. For details contact Gordon on - thurkettle@adam.com.au
For $100 you could become a parent of a little cutie like this one...

by joining the ADOPT AN ECHIDNA. programme, a scheme set up by Echidna Care. Adopt an Echidna Programme is looking for schools, organisations, companies or individuals to act as foster parents. “Official” Echidna Adoption papers will be sent to new ‘parents’ and they will receive a regular update about what their ‘kid’ gets up to.

All ‘adoption fees’ are used for continuing research by Dr. Peggy and will help directly with field work, continual monitoring of individuals and community outreach programs.

What a great gift to give someone who has everything – except their very own echidna!

Contact Echidna Care Inc. Adoption Agency P.O. Penneshaw, Kangaroo Island, South Australia 5222 Email: echidna@kin.net.au

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

..from the editor

I’m thrilled - I’ve just been told I am a godmother - for the very first time! My godchildren live on Kangaroo Island. They are a lively bunch of baby Rosenbergs Goannas. These are one of the many perks of being a volunteer at Pelican Lagoon Research Centre! The email message advising me of my new status went on to say - "... your termite mound has hatched a clutch of brightly coloured baby Rosenbergs Goannas. Shiva (Dad) and their mother are off walkabout so all the excitement falls to you. There are manners and termite eating etiquette to be learned, street sense to be polished and evasive gymnastics to be mastered. So far the kids seem to be handling it all in stride. More updates as we learn more."

some of my ‘kids’  Ed
The Nyingarn (Echidna) is the Totem animal for the Beeloo People, the Nyoongar Clan who are the traditional caretakers of the land north of the Canning River, Western Australia.

Artists Sandra Hill and Tony Pankiw created an ‘echidna tree’ from rusted steel to honour this special creature which has been erected by the river bank. “Nyingarn follows the ant trail”, says the inscription on a nearby sign, “Shuffling amongst the leaf litter that has gathered along the trunk of a fallen tree”.

Echidna Watcher, mysteriously known as S Steggal, spotted the rustic art piece while travelling through the Western Australian outback.

Collector’s Item

The now out of print book by Dr Peggy Rismiller; *The Echidna - Australia’s Enigma* has obviously become a collectors’ item. Dr Peggy’s book was sighted on Ebay recently with a price tag of $75 - three times its original price!

Now that’s an alarm!

CVA and Earthwatch team - have you ever wondered how Peggy and Mike manage to be up bright and early each morning long before anyone else? It’s because alpha female kangaroo Rooby, has taken on the daily duty of their alarm clock. Each morning she sits outside their bedroom window giving her special kangaroo ‘roar’ and in turn each roo in the mob echo her call. This dawn chorus will continue until either Peggy or Mike respond in kind.
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

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.

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