



SUMMER EDITION 2012

Cape Otway koalas: an over-abundant population in southern Victoria

Alistair Melzer
October 2012

I have started a collaborative study of Victorian koalas with Dr Desley Whisson from Deakin University. The site is located near Cape Otway in southern Victoria. This is an Earthwatch funded project set to run initially for three years. Three trips are run each year Desley runs two and I run one.

The koala population is widespread through the Otway ranges and adjacent coastal hills and plains where ever suitable habitat remains. The main population we are looking at occurs in manna gum (*Eucalyptus viminalis*) although we are also looking at some populations in other nearby forest types (blue gum *E. globulus* tall forest, stringy bark *E. oblique* forest)

The koalas were introduced in the early 1980's and are now superabundant. Tree health is declining and there is a large area of dead or near dead trees. And there are lots of koalas! In the blue gum forest we have estimated about 230 koalas / km² while in the manna gum low forest the density was 1274 koalas / km². This compares with about 40 koalas / km² at Springsure before the drought. The reasons for such over-abundance are not known. We intend to follow the fate of this population, see if the animals disperse or die of starvation and also follow the fate of the forests they are denuding. Will there be a local extinction or will a lower density, but more stable, population persist after the crash?



Figure 1. Low manna gum (*E. viminalis*) forest at Bimbi Caravan Park, Cape Otway. Koalas are very abundant and occurring on low trees generally below 10m from the ground.



Figure 2. Tall blue gum (*E. globules*) forest near Cape Otway, Victoria. Koalas are common in this forest. The trees are 40 – 50m height with few if any lower branches. Koalas have a long climb to access foliage and a long climb down when they change trees. We measured one koala at 43m above the ground.



Figure 3. Despite the growing shortage of foliage nearly every female koala had young in September 2012.



Figure 4. Skeletal remains of manna gum amongst coastal heath in Cape Otway national park. All these

isolated stands of manna gum are being eliminated by persistent koala browsing. Further inland large acreage of manna gum forest is dead or dying.



Figure 5. Cute shot for this Earthwatch volunteer, however, while the koala relaxes low down on a relatively hot day, the tree is severely stressed and will, probably be dead this time next year.

Hello everyone

This is our last newsletter for 2012. So we wish you all an early Merry Christmas. This year has gone so fast and our workload so intense that some of our routines have been disrupted.

Despite that, a lot has been achieved for koalas. There has been intense activity meeting with state and commonwealth to (a) achieve the commonwealth classifying the koala as “vulnerable” and sorting out regulations around that, (b) establish research priorities for regional Queensland, (c) running a workshop of koala expert researchers and managers to further the conservation of central Queensland’s koalas, (d) working with national experts to build consensus on koala numbers and management actions, (e) preparing the book of the expert workshop (due before Christmas by the way), and (f) running such research trips as we had time to do.

This year we have not been able to return to Tambo, Hughenden or Collinsville. This will have to be

rectified next year. The trip to St Bees was short. However, Gail’s project around regional koala sightings has grown in leaps and bounds and there is a lot of media interest in her work. Well done Gail. Coincidentally, a new post-graduate student Rolfe Schlagloth has joined the Koala Research Centre to pursue a study of koalas and roads in Victoria – complimenting Gail’s work.

Next year we are planning the usual St Bees Island trip in July, the Earthwatch trip to Cape Otway in Victoria during September, two trips to Springsure to maintain the habitat work there and visits to Tambo (a longer trip this time) and Hughenden.

Your assistance has been greatly appreciated. The work that you supported has been influential in deliberations in Canberra and in Brisbane.

More seriously two of our team Dawn Pound and Linda Frawley are fighting illness this year. Our thoughts are with them and we wish them well into the New Year. Dawn, along with Carmen, was the first to join the team in 1989 and her contribution to my research is immeasurable. Linda has joined us later but is a valuable contributor.

Despite these challenges we hope everyone has a great time over Christmas and we look forward to working together again in the New Year.

Alistair Melzer

Mission

CQ Koala Volunteers seek the conservation of the koala and other tree living mammals in Central Queensland by

Supporting research into koalas, other arboreal mammals and their habitat through (a) providing volunteer support to research projects, and (b) assisting in the raising of funds for research and the volunteer teams;

Developing public awareness of the needs of koalas, tree living mammals and their habitat requirements generally;

Fostering community support for koalas and tree living mammals generally;

Encouraging and assisting with the development of habitat rehabilitation projects where necessary through the region;

Supporting the rehabilitation and release of sick, injured or displaced koalas and tree living mammals.

The Central Queensland Koala Volunteers are not about stopping development. They seek to encourage planned development, which allows for the co-

existence of koalas and other tree living mammals with human activity.

Funds are used to buy equipment for the researchers, to fund volunteer field teams and provide limited support for animal carers. Donations may also be made to the Koala Research Centre of Central Queensland and are tax deductible.

Office Bearers

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Central Queensland Koala Volunteers
Institute for Resource Industries & Sustainability
Building 361 CQUniversity,
Bruce Highway, North Rockhampton QLD 4701.
or call Denise on 0749309944 and leave a message.

Fund Raising CQKV 1994 – 2012

The period 1994 – 2003 had very sketchy information on finance until I became Treasurer but I did my best.

Amount expended on research and I have included \$2 146 Government Grant and \$7 000 about to be spent:
Research: \$36 122.48
Administration: \$2 280.16
Total \$38 402.64

Amount Raised: \$68 174.54

Current Assets: \$29 771.90

Fundraisers include:

Commission on sale of members' paintings
Catering
Orphan Koalas & Koala items
Koala calendars
Bush dances
Cuddly Koala appearances
Sale of Koala chocolates
Aluminium cans
Sale of sweat shirts
Interest on investments
Donations.
Shirley Hopkins

Looking for Koalas

Hi, I'm Caitlyn Ogunyanwo

So, you are looking for koalas... I think you might be interested to know that we have two resident adult koalas and a new baby koala that live in our school grounds and move around to trees surrounding the school.

These photos were taken just over a week ago, and I have heard a male outside my house window this evening...



These koalas live at Clarke Creek State School, 84kms from Marlborough on the Old Sarina/Marlborough Highway!

If you would like any other information please feel free to email me.



Caitlyn Ogunyanwo
P-2 Teacher
Clarke Creek State School

Research information from Gail

Congratulations to Gail and her fellow researchers on the publication of their paper. Title and abstract below.

Relationships between morphometric variables and age for captive individuals may not accurately estimate the age of free-ranging juvenile koalas (*Phascolarctos cinereus*)

Gail M. Tucker, I. Delma Clifton and Stephen C. McKillup

Abstract. Several studies report methods for determining the age of juvenile Queensland koalas (*Phascolarctos cinereus adustus*) but these are mostly based on data from captive populations, because observing the birth of koalas in their natural habitat is extremely rare. We identified the exact date of birth for two male joeys by initially observing one within minutes and the other within hours of their birth, at St Bees Island, central Queensland. Successive measurements of head length, as these individuals matured, were used to construct a growth curve for free-ranging juveniles. When tested, only one previously published growth curve (based on body mass) was able to accurately estimate the age of the two joeys. Both methods were then tested for precision using morphometric data for other juvenile koalas in the St Bees population. The estimation of age of juvenile koalas was considerably more precise when based on head length. These results demonstrate the inaccuracy that may be inherent in growth curves derived from captive animals and also show that estimates of age based on data from individuals in a particular population or locality may not be accurate throughout the range of a species.

The full article can be found at <http://www.publish.csiro.au/?nid=90>



Otway Koala

The Rockhampton Grammar School Prep M children saving the Koalas Adair Mehlhose (teacher) and Prep M

Alexander M (5 years old) came bursting through the doors of the classroom at the beginning of Term 2. *“We need to save the Koalas. In a year they will be extinct like the dinosaurs. They are so cute. We have to save them!!!!”*

“When I am a Dad, there won’t be any koalas for my children to hold...”



Alex had been watching Sunrise when he heard Deborah Tabbart talking about the extinction of Koalas. Alex arrived at school with the information in hand and eloquently explained to his classmates about the plight of the Koalas. “We have to save them!” If we don’t save them they will die!!” His classmates agreed that they needed to do something.



I showed the children the Sunrise edition that Alex had watched with such passion. The class identified the problems relating to the inevitable extinction of the koalas and immediately found possible solutions. When there is no limit nor constraints imposed on searching for solutions the results are quite amazing.

At Prep we believe the children are strong, rich and

capable and their ideas and thoughts are valued and respected. Students develop a sense of agency when they have the opportunity to make decisions about aspects of their own learning. As a result, they feel more motivated to acquire new knowledge and may even gain the confidence to act upon it by challenging established norms and effecting change within their own community.



The children looked at each problem and came up with realistic solutions.

Problem: Trees are being knocked down. The koala habitat is being destroyed. Alex

Possible solution: Simple! Stop knocking down trees. Maddy

Problem: People need to build houses to live in

Possible solution: Why can't they leave the trees and build houses in the trees. Tree houses. That way koalas and people can live together. Prep thinking

Lucy brought in a book of tree house designs and we researched some more on the internet. We could design our tree house village. What would we need in this village?

Koalas are being killed by cars and dogs too, so our village needs to have connections between the trees and ways to get up and down. George



Problem: Bad food kills Koalas

Possible solution: The Preps and their Grade 7 buddies participated in Planet Ark's Tree Planting Day and planted nearly 600 gum trees for the koalas.



Problem: Research is expensive, saving a koala is expensive.

Possible solution: We need to raise money for the koalas. We will sell our art work. We will make book marks, bunting and coasters.

Our Grade 7 buddies came down and are helping us write a song about the koalas. They came down and listened to what we had to say about koalas.

We may be small but we are powerful. We will send our ideas to our Mayor, Prime Minister and Mem Fox. After the Mayor came to visit the classroom we had an email that we can adopt a koala at the Rockhampton Zoo. The children's hard work has paid off and they have successfully completed their goal. By selling their artwork they raised approximately \$2700. The children are raffling an autographed Mem Fox book that she sent them to congratulate them on their excellent project and help them to raise money for the Koalas.



As a teacher I have been very impressed by the children's passion for the environment. This project carried on over two terms and the National Curriculum intertwined effortlessly with everything we did.

The second term included the Aboriginal Elders who came and answered the Preps questions like ‘Where did the first Koala come from?’ Bella and ‘How did the world begin?’ Heath.

The children also wanted to know if Aboriginal and non-Aboriginal people could come together to save the koalas. The collaboration with the Aboriginal Elders enriched the children’s understanding and lives. The preps ended their last term by writing a collaborative book about Kurbroo the Koala and his journey from Dreamtime to today.

I asked the children what they would like to see happen after they left Prep and ventured into Grade 1.



They would like to come back every year and plant trees with the new Preps and they would like other children to raise money and send it to the Rockhampton Zoo. ‘Imagine if all the children in Rockhampton worked together to save the Koalas..... We would make such a difference’ Prep M talking



Otway koala

‘Remember – Koalas can’t speak so we need to be their voice.’ Alex M

Update on Wanted Poster

We have updated the wanted poster for this season and have added a new e-mail address where people can contact us or report koala sightings.

So far we have had a good number of reports coming in, but are always happy to receive more information about where people are seeing or hearing koalas throughout all of Central Queensland.



Search for - **Central Queensland Koalas** – on **Facebook** and Email koalas@cqu.edu.au

For the part of the project where we are collecting information about dead koalas on our roads, we are liaising with the Mackay branch of the Department of Transport and Main Roads, where we have their support and they are helping to facilitate the collection of dead koalas for us. If we can get the bodies of dead animals close to when they were killed, we can examine the bodies to determine valuable information about gender, age, size, body conditions, etc.. We are also able to collect tissue and DNA samples that we are storing for future analysis.

Our records of live sightings are building a good picture on our map and we will be able to inform government agencies to assist with the koala management and conservation efforts.

Our main reports are in the Sarina and Eton Ranges, along the Peak Downs and Bruce Highways, around Stanage Bay and Flaggy Rock and around the headwaters of the Connors River.

Gail Tucker