Central Queensland Strategy Country Volunteers

St Bees Island Koala Habitat Management by **OPWS** (Marine Parks)

There has been a long standing problem with the koala habitat on St Bees Island.

Eucalypt regeneration

There has been little germination of the eucalypt trees that the koalas depend on for food and water. These eucalypts are Queensland blue gum (*Eucalyptus tereticornis*) and poplar gum (*Eucalyptus platyphylla*). It was believed that the abundant goat population was eating any seedlings before they could become established. A program to eradicate the goats commenced in the early 2000's. This year the island was declared goat free. This is a great achievement after over almost a decade of intense work.

Congratulations to Marine Parks and their dedicated team!



After the fire. Beverley Bay ridge, St Bees Island November 2017. (Photo A. Melzer)

Moreover, we started seeing eucalypt seedlings in various places across the island after the majority of goats were removed. Those are now sapling size. Then, the seedlings disappeared.

SUMMER EDITION 2019



Regrowth after the 2018/19 fire on St Bees Island. A strong regrowth of *Tephrosia* sp. has replaced the impenetrable lantana shrubland there previously. Dead rainforest shrubs are evident in the photo. Leif Black is looking for koalas. We found quite a few in the blue gum and poplar gum. (photo A. Melzer)

This time the problem seems to be the swamp wallabies. This species is a browser that is known for eating eucalypt seedlings and small saplings. Numbers of wallabies increased steadily as the number of goads declined. Apparently, the goats had been competing for food with the wallabies and effectively suppressing the wallaby numbers. With the resource completion removed, the wallaby population increased rapidly. I estimate that it reached around 500 animals about 3 years ago, although numbers declined as spring droughts intensified.

Marine Parks has commenced a restricted cull of the wallabies, focusing on the areas around Beverly Bay, Shark Point (The Knoll), and Honeymoon Bay. Nearly 200 animals have been removed. In May this year I saw the first eucalypt seedling I had encountered for a number of years. So perhaps the wallaby control is starting to work.

Overgrowth of eucalypt communities

For decades, there has been a steady thickening of the vegetation on St Bees Island. This could be seen in the spread of shrubs and trees into the grasslands, and the grassy understorey of the eucalypt woodlands and open forest, as well as the overgrowth of eucalypts by rainforest trees and lianas. The species involved are mainly rainforest trees, shrubs and lianas, bloodwoods (*Corymbia clarksoniana*) and lantana. The problem became more acute as the goat population was removed. Evidently, the goats were browsing out any invading species and keeping the woodland understorey and grasslands largely free of woody species and vines. Before goats were introduced, overgrowth of woodlands and grasslands would have been achieved by periodic burning by the traditional land owners.

In recent years, Marine Parks has been developing a strategic fire regime to re-establish the pre-European controls on ecosystem patterns cross the island. Periodic burning of the grasslands appears to have halted the spread of woody species, and in some cases pushed the grassland into shrubby lands that were formally grass dominated.

The burning of the woodlands has been less successful until recently. The issue has been to have the landscape dry enough to burn, but not so dry as to destroy the overstorey canopy where the koalas are residing. In November 2017, they undertook an experimental dry season burn on our study site at Beverley Bay. That burn killed the majority of lantana and set back rainforest species and bloodwoods that were colonising the former grassy poplar gum woodland. Koalas that we observed in the treetops were unaffected and still present the following May.

Recently, Marine Parks burned the forested hills around Beverley Bay, using incendiaries dropped from a helicopter. The resulting fire was widespread and hot in places. We inspected the area in May and found that

- (1) koalas were using the trees over the entire area,
- (2) most lantana was killed outright,
- (3) rainforest species were killed or set back, (4) any surviving lantana was resprouting very slowly, and
- (5) there was widespread growth of a native shrub legume. This formed a dense waist high ground cover.

These two fires are encouraging, and it looks like targeting a dryer burning season, and applying fire in a way that facilitates its spread may provide a tool to maintain the wooded grassy ecosystems and associated koala habitat on St Bees Island.

We are heartened by this and commend Marine Parks for this approach.

Dr Alistair Melzer

Adjunct Research Fellow | Koala Research CQ, School of Health, Medical and Applied Sciences

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I respectfully acknowledge the Traditional Owners of the land on which we work and learn, and pay respect to the First Nations Peoples and their elders, past, present and future.



THE GATHERING OF THE KOALAS AT MEREDITH ust released

Rolf Schlagloth; Flavia Santamaria & Gayle Newcombe This book is not simply a narrative on the topic of the Environment or an elaboration on the dire straits that koalas find themselves in - it is an exploration of our inne

Foreword by wildlife artist Steve Morvell.

self and how we relate to each other and our surroundings. The authors leave us Profits from the sale of this book will go towards selected koala research projects.

with some profound knowledge and food for thought.

Two members of the Koala Volunteers Central Queensland group, Drs Rolf Schlagloth and Flavia Santamaria have written a book (The Gathering of the Koalas at Meredith). The book was inspired by the many years of koala research they have undertaken, especially during their work in Ballarat, Victoria. Flavia and Rolf are aware of the many challenges that are involved in koala conservation. They believe that continuing with business as usual will led to the demise of this beautiful flagship species. Despite containing beautiful drawings, this book is not aimed at children but rather at those who are willing to be challenged to engage in activities and actions that prioritise the conservation of the Koala. It is of vital importance for our planet that koalas persist in their natural habitat into the future.

Fires becoming an ever bigger threat to Koalas in Qld and NSW

The fire season has just started, and because of severe drought conditions, we have already lost thousands of hectares of native vegetation and with it, hundreds, maybe thousands of koalas. Those koalas that are found and taken to wildlife carers are the 'lucky' ones – if they survive their traumatic injuries, however, most koalas

#THE FEED WE'RE LOSING THE BATTLE': FEARS FLARE OVER KOALA POPULATION FOLLOWING BUSHFIRES koalas not only losing their habitats but their lives.

never found and die awful deaths while their trees burn like torches. Of course, it is not only koalas that suffer. numerous other species and individual animals have been injured or perished.

My family and I have just managed to get through a fire where we live, near Yeppoon. Our family, animals and



house are ok, only paddocks and fences have been destroyed. Sadly, we found a burnt snake but it appears that birds and marsupials managed to escape the fire – at least near our property. No koalas around Yeppoon / Rockhampton any longer unfortunately as they were hunted, and their habitat severely altered around 100 years ago. We all know about the 'open-seasons' on koalas in the early 1900s with Old being the last state to discontinue the hunting for fur after the mass killings of Black August in 1927 when in Old alone some 600,000 koalas were killed for their fur.

Most references state that the greatest threats to the longterm survival of the Koala in the wild are the loss and fragmentation of their habitat, collisions with cars, attacks by dogs and diseases with fires further down the

list – it looks like that we might need to re-evaluate the threat of fire to koalas with a changing climate causing more severe, more frequent and more widespread droughts, and unfortunately, it appears also more fires resulting in more koala casualties and fatalities.

Dr Rolf Schlagloth (November 2019)

The Importance of the Koala in Aboriginal Society

At the end of last year, Dr Rolf Schlagloth (KVCQ & Koala Research CQ-CQUniversity), in conjunction with two colleagues from Federation University, released a journal article reporting on their investigation into historical literature to determine the importance of the Koala in Aboriginal society (Schlagloth, R.; Cahir, F. & Clark, I. (2018). The Importance of the Koala in Aboriginal Society in Nineteenth-century Victoria (Australia): A Reconsideration of the Archival Record, Anthrozoös, 31:4, 433-441, DOI: 10.1080/08927936.2018.1482115)

The principal aim of this study was to provide a close examination of nineteenth-century archival records that relate to Victorian Aboriginal people's associations with koalas, in order to gain a greater understanding of the utilitarian and symbolic significance of koalas for Aboriginal communities, as recorded by colonists during the early period of colonization. The article touched on the etymology of "koala" and the animal's spiritual importance, associated cultural traditions, and simultaneous utilitarian role.

The research team has now focused its attention on New South Wales with a paper having been accepted and soon to be released in ab-Original -Journal of Indigenous Studies and First Nations and First Peoples' Cultures (Vol. 2, 2019 out in early 2020). It is interesting to observe the often ignorant reporting on the koala by Europeans as they refer to the species as monkeys, sloths or bears in an attempt to link them to species known from Europe or Asia. The snippet from The Colonist (1837) suggests that the Koala (a species of sloth) was already in decline very early after establishing the colony of NSW which brought with it a dramatic change in land management practices.

The Wombat (phasmocolys), a kind of bear or badger, weighing forty pounds, from its being good eating, is fast disappearing; as is also a species of sloth.

The team is now in the process of applying their craft to examining literature on the same topic pertaining to the state of Queensland.

Many of the early naturalists and missionaries who kept records of their travels and reported back to Europe on many of their encounters, came from Germany and therefore their anecdotes were often written in their native language e.g. Richard Semon, a professor from Jena, wrote in 1896 in 'In the Australian bush - travel experiences and observations of a naturalist:

Die Beutelbären am Burnett, von den Schwarzen »Gulla« genannt (in dem Eingeborenen-Dialekt im Süden des Erdteils heißt

The pouchbears at the Burnett (river in Qld) are called 'Gulla' by the blacks....

... and then he goes on to describe how he hunted (shot) 23 female koalas in one day just to find foetuses of different size for his collection.

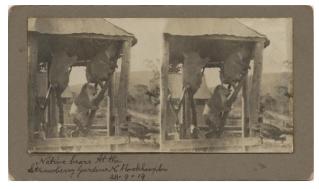
Gefahr droht, in den Beutel zurück. Während ich bisher die Beutelbären ganz verschont hatte, machte ich jetzt im ausgiebigsten Maße Jagd auf sie und erlegte beispielsweise einmal an einem Tage 23 Stück. Gewöhnlich saßen die Tiere so hoch in den Bäumen,

Obviously, it is a good skill to be bilingual (German and English in the case of one of the authors – Rolf Schlagloth). It was interesting to note the many different names given to koalas in the different Aboriginal languages but there is always a caveat to consider because nearly all these records were made by Europeans who interpreted what they saw, and heard, with a very biased view.

If there are any members or readers who have access to, or knowledge of, literature from Qld who could assist this research, please make contact with Rolf r.schlagloth@cqu.edu.au

Stay tuned for the Qld version on this topic to be released next vear.

In the meantime, if any of the readers have access to historical koala literature, recordings or photos describing or showing interactions or management of the koala in Qld and especially the greater Rockhampton area – it would be wonderful if you could share these as well. We are obviously working on other historical koala papers as well. The below picture from 1919 showing caged koalas at North Rockhampton is one such example.



Dr Rolf Schlagloth (November 2019)

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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CQKV – Capricornian Statement 1 January 2018 to 31 December 2018

S5 - Savings Accumulator Account

Credit Balance as at 1 January 2018

\$6,984-18

INCOME

Memberships \$160-00 Donations 95-00

\$ 356-64 Interest 101-64 \$7,340-82

TOTAL

EXPENSES Nil

> Credit Balance as at 31 December 2018 \$7,340-82

S26- Club Cheque Account

Credit Balance as at 1 January 2018 \$ 712-18

INCOME

Interest \$ 0-71 0-71

\$ 712-89 TOTAL

Stationery \$ 7-98

Official visit to Brisbane

S. Hopkins – Transport \$395-00 TOTAL \$402-98

Credit Balance as at 31 December 2018, \$309-91

TERM DEPOSIT

Credit Balance as at 1 January 2018 \$12,731-15 INCOME Interest to 31 Dec 2018 \$ 343-73

\$13,074-88 TOTAL

ASSETS S5 Savings Accumulator \$7,340.82 S26 Club Cheque Account \$ 309-91 **Term Deposit** \$13,074-88

> TOTAL \$20,725-71

An increase of \$298-20 over 2017



The Royal Society of Queensland

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18 October 2019

Ms Shirley Hopkins Treasurer Central Queensland Koala Volunteers 6 Leeds Avenue Kawana Old 4701

Dear Shirley Hopkins

I'm writing to advise you of the results of the second round of awards under the Royal Society of Queensland Research Fund.

Independent assessments by three experienced scientists ranked two applications for research into koalas as the most meritorious.

Koala microbiomes by Dr Michaela Blyton of the University of Oueensland.

We are delighted that the Australian Koala Foundation has agreed to sponsor this award, for \$5000. This has enabled the Society to make a second grant.

Koala Retrovirus infection by Dr Bonnie Quigley, University of the Sunshine Coast, for \$4970.

Presentations of certificates will be made at an event to be scheduled, probably at the Annual General Meeting of the Society late in November.

We have also decided to take the step this year of publicising summaries of several of the runners-up which were also deemed worthy of support but to which the available funds won't stretch. These now appear on our website, along with an announcement of the winners.

I trust that the Central Queensland Koala Volunteers will gain satisfaction from seeing two more research projects focused on koalas being given public produced por gane us last you gave us last year has pendled year has pendled year has pendled place on our entrankle 18850 5887

President President@royalsocietyqld.org.au mantel

Central Queensland Koala Volunteers www.cqkoala.org.au