

### The Primary Producer's War on Rabbits - from Rob Kerin Executive Chairman Primary Producers SA

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Primary producers are at the forefront of Australia's 150 year war on rabbits.

From the 1860's onward, primary producers battled the invasion of rabbits. The first 100 years of that battle focused on direct efforts of primary producers and governments, through fencing, trapping, shooting and warren destruction, supported by government policy and legislation. The end result was a constant and failing battle against the remarkable breeding and dispersal behaviour of rabbits.

The following 50 years saw the application of science through development of rabbit specific biological controls and integrated pest management systems. Finally, populations were reduced to a point where better land management and production outcomes can be achieved. For some regions, rabbit plagues and rabbit damage are now largely non-existent.

Adding to our investment in direct rabbit control, primary producers and their organisations play a fundamental role in providing financial and business support to one of the most confronting challenges facing the modern settlement of Australia. Through the development of partnerships with governments and the science community we have contributed much to the ultimate success in overcoming the devastating impact of rabbits.

It would be easy to sit back now and be satisfied with this progress given the latest reduction in rabbit populations through the spread of new and strengthened biological controls. This would be a mistake, as we know that genetic resistance of rabbits will only take time to adjust. This is why Primary Producers SA continues to advocate for

on-going investment in long-term strategies for capitalising on the rabbit control work to date. It is also why we continue to support the work of the Foundation for Rabbit Free Australia.

It is estimated that rabbits continue to cost primary industries around \$200 million per year. More remarkably, it is estimated that biological control of rabbits had saved primary industries around \$70 billion by 2011. These are significant figures and I encourage primary producers to continue supporting the Foundation where possible.

**Livestock SA's Joe Keynes  
President, Primary Producers SA,  
Agrees!**

"As a child of the 60's growing up on our property at Keyneton, I went out with our retired workman to walk with him as he set his rabbit traps. I remember the whiff of larvicide, as my father fumigated a warren. Rabbits have inhabited our farm over my lifetime but certainly were more prolific over the generations before.

My father recalled many rabbits harbouring in the stone walls that were built across a large part of the farm in the 19<sup>th</sup> century. Their living in and under the stone walls, started the decline of some sections. Today it is the pressure of kangaroos lazily jumping on the top of the wall and dislodging the capstones that is causing more damage.

Grazing pressure and land degradation today is less from introduced species, with the mantle passing to abundant native species, predominantly kangaroos and wombats.

Rabbit populations in some distinct areas of the property build up, but after waves of myxomatosis or Calici virus the numbers of rabbits are greatly reduced. There are always some rabbits left but hard to clean up completely as they harbor in fallen timber, the dump or around buildings. If there are visible warrens we may rip and occasionally do some strategic baiting if the numbers are high.

Certainly the effectiveness of the biological controls makes them the major control method for Keyneton Station. We employ baiting, ripping and fumigation occasionally when numbers warrant."

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## Update from the Chairman



Members of our Foundation make a vital contribution to Australia's war on rabbits.

From the perspective of Australia's 150 year war on rabbits, we continue to make progress. Both natural environments and production systems benefit from vast improvements in rabbit control. As such, it is pleasing to observe that many districts and regions are fortunate to no longer experience severe ongoing rabbit infestations.

As a result, the Australian community can achieve more adventurous production goals and more ambitious environmental recovery goals. Of course, this situation also leads to complacency and attitudes that work against the objectives of RFA. At the end of the day, this is a nice problem to have.

Our 2018 Annual General Meeting was recently conducted at which these issues were highlighted by experienced land managers who were concerned that we may lose momentum and fail to capitalise on the current situation. It was concluded that this is a problem we need to work with as we try to influence an increasingly urban community and various levels of government. RFA members should take the opportunity to advocate more loudly and promote the story of rabbits and the successful reduction of their impact in Australia.

Science and its application in the field was key after more than 100 years of determined but frustrated direct control efforts. Science remains key to continued progress to further reduce ongoing impacts of rabbits on Australia's natural environment. The application of science in the form of biological controls and integrated pest management sys-

tems dramatically improved the effectiveness of the war on rabbits. After more than 50 years of development, science remains the cornerstone of success in the future war against rabbits.

The Foundation for a Rabbit Free Australia remains the only not-for-profit entity in Australia raising funds for research, awareness raising and improved management of wild European rabbits, acknowledged as Australia's worst vertebrate pest.

Our modest but sound financial position at the end of the financial year was slightly stronger than at the same time last year. This outcome, as well as some great science and promotions, was achieved thanks to all our members and donors as well as continuing support from our significant sponsor, Haigh's Chocolates.

Every Chocolate Bilby sold by Haigh's, includes a message about the work of RFA. This year Haigh's celebrated 25 years of their Easter Bilby marketing campaign. This is truly a remarkable achievement by the company making a difference to environmental outcomes, especially those related to bilby conservation. Our next newsletter will explore the gains in bilby conservation in a little more detail.

Meanwhile, as a charitable foundation, we rely heavily on the continued support of our members and your promotion of the important ecological and economic consequences of our work.

Following our 2018 AGM, we would like to acknowledge retiring committee member, Julia Harris, for her 3 years of service on the RFA Committee. Julia brought fresh and practical insights to the Committee from her role as joint Manager of Bon Bon Bush Heritage Reserve in the northern arid region of South Australia. From Bon Bon Reserve, Julia ably assisted the functioning of the RFA Foundation while undertaking an ambitious program of rabbit control over 300 square kilometres to restore the functioning of important natural habitats. We wish Julia and husband, Mike, well in their busy endeavours and passion for the environment.

After many years of service as a senior research officer to Biosecurity SA, Greg Mutze has retired from the SA Government and from his role as biosecurity advisor to RFA. Fortunately for the Foundation, Greg accepted a nomination to fill the vacant committee member position and was elected at the AGM. We welcome Greg and look forward to his contribution in his new role.

I thank all Foundation members and donors for your continued support and wish you well for 2019.

Peter Alexander

Chairman

Foundation for Rabbit Free Australia

December 2018

## An Early Anti-Rabbit Man — A Tribute to Peter Morgan

Peter Ranambe Morgan died earlier this year and it would be remiss if his interest in and contribution to RFA over many years was not acknowledged and given due recognition.

I was one of many people who came to know Peter quite well. While he liked to personify a somewhat fearsome reputation, he was always courteous and reasonable. In fact he was quite gentle and kind in his own way, yet not tolerating those he regarded as fools.

I first came across Peter at a meeting about the then new pastoral legislation at Yunta in the north-east pastoral region in 1989. Peter was the vocal spokesman for the then United Farmers and Stockowners Association, as well as being managing director of the Mutooroo Pastoral Company and board chairman. Needless to say that he put his points of view strongly and thereby added usefully to the ultimate form of that Act.

Peter recognised early that rabbits are the scourge of sustainable pastoral management and he wanted to see continuing research on this major problem. He was most pleased when rabbit calicivirus made its major mark on the landscape with increased biomass and plant diversity. If others in the pastoral region were prepared at least to join RFA as members as well as donating to such research, the chances of fixing this problem would increase greatly.

The then manager of Mutooroo, John Manning once told me that he learnt a great deal from 'PRM' as he was respectfully and affectionately called by some in the north-east. Peter went to university at Oxford and was widely read and thus had many interests. He spent much of his life practising as a lawyer and one of his sons, William, told me that Peter had spent some time drafting legislation. William continues to provide pro bono support to RFA as treasurer. So the Mutooroo Pastoral Company maintains its association with RFA.

Peter is survived by his wife Susan who continues to support RFA and children Deborah, William, George, James and Rachel. I miss his wit and sense of right and wrong.

Nicholas Newland AM  
Past chairman RFA



## Rabbits and Drought



The current drought experienced throughout NSW and elsewhere brings to mind the following (edited) paragraphs from Bruce Munday's book, sponsored by RFA, *Those Wild Rabbits – How they shaped Australia*:

At great risk are the rangelands. By definition it is mainly very dry, characterised by perennial vegetation that grows slowly but to old age. Occasionally it rains, very occasionally heavily. These big rains might come on average only once a decade, and even that might be at intervals from one to 20 years – average 10.

Following a big rain is a massive explosion of annual vegetation springing from seed waiting for that rare right moment. Rabbits being what they are respond almost instantly to this natural bounty. No native or farm animal can match this rabbit reflex that can produce up to six litters in a year. In due course the annuals are eaten and there is a

return to browsing on perennials. As feed reserves decline sheep numbers are wound back but rabbits stay, devouring what they can of every living plant to stave off starvation of their grossly excessive population.

The long-lived perennials too have their once-in-a-decade germination or suckering – that rare opportunity to perpetuate the place of that plant in the landscape. Rabbits that browse mature perennials as a second preference now elevate those young seedlings or suckers to the top of the menu - and a generation of perennials is lost and the parent plant a generation closer to its final day. This plant might never reproduce before dying of old age, and even the juveniles that miraculously escape are forever bonsai'd so that they too never set seed. And with this go the birds and animals that depend on it. The rabbit is not the only villain, sheep and cattle doing their bit, particularly in unregulated days past. But it is the brutal grazing of rabbits and sheer weight of numbers that overwhelms, that tips the balance to a point where there might be no way back.

It is not just the 'complete degeneration' that should worry us. Dr Brian Cooke has shown that 'It takes less than one rabbit per hectare to prevent the successful regeneration of many of our common native trees and shrubs. This means that many rabbit-infested patches of remnant vegetation can't sustain themselves naturally and are slowly on the way out – unfortunately this often goes unnoticed'.

## News in Brief

### Resurgent RHDV K5?

Low rabbit numbers on an Eyre Peninsula property may be due to an increase in RHDV K5 during cooler months – a result anticipated by Natural Resources Officer, Ben Tucker, who coordinated the local release of the virus at trial sites last year.

For more information, see the November, 2018 [Stock Journal article](#).



### Diverse genetics indicates diverse origins

Australia's feral rabbits fall into three primary genetic lineages, with three other highly localised ones, according to a recently published research paper. The results suggest the rabbits originated from different introductions across the country, rather than a single site.

The research, assisted in part by funding from the Foundation for Rabbit Free Australia, examined the genetics of rabbits from 18 populations across Australia. It found major genetic groupings in WA, southern Victoria, and central NSW, with strongly differentiated local clusters in SA and NSW.

Historic reports cite repeated attempts to introduce rabbits at sites across Australia (with over 200 separate attempts in the mid 1800s). The genetic data indicates that a number of those attempts ended up being a nucleus for the regional expansion of rabbit populations.

Better understanding the genetic makeup of wild rabbit populations may help to explain geographic variations in resistance to biological controls, and provide a framework for planning

control programs.

For more information, see the 2018 Biological Invasions paper by Iannella et al, '[Genetic perspectives on the historical introduction of the European rabbit \(\*Oryctolagus cuniculus\*\) to Australia](#)'.

### Virus immunity in young rabbits

CSIRO funded researchers have discovered why young rabbits are immune to RHDV1, but not RHDV2.

It seems that young rabbits have a naturally heightened immune system, but RHDV2 is able to shut down the elevated immune state – whereas RHDV1 is not.

For more information, see the Research Updates in [Feral Flyer Issue 350](#) (the newsletter of the Centre for Invasive Species Solutions) or the [original research paper](#) by MJ Neave et al.



### Remarkable conservation – rabbit, rodent & cat removal

Macquarie Island's rebirth continues following the removal of rabbits, rodents and cats.

Described as one of the most remarkable stories of conservation in Australia (if not the world), the vegetation on the island is now 'just going nuts' and bird life is also recovering, with 'beaches littered with wildlife'.

For more information, see the [ABC News article](#).



### Killing wild rabbits conserves native mammals

Ecological modellers have shown how reducing wild rabbit numbers helps maintain small native mammals.

Benefits for small mammals occur when 30-40% of rabbits are removed through a mix of biological and physical controls. Higher rates of rabbit removal can lead to a decline in small mammals in the short term, but with subsequent long term recovery under continued high rates of rabbit control. Field research has previously shown that higher rates of control can be needed for the sustained regeneration of highly palatable native plant species.

For more information see the article in *The Conversation*, or the [Journal of Applied Ecology](#).

### How to monitor Bilbies

The Martu people of the western deserts are involved in developing a bilby monitoring program, combining traditional knowledge and scientific techniques.

Robust monitoring is critical to the evaluation of different management strategies, such as burning practices and the control of cats, foxes and rabbits.

For more information on the project, see the [Threatened Species Recovery Hub](#) – project 3.2.2.2.

