



Devilish Encounters

Summer 2011

It's official: Devil Ark is launched!

Devil Ark was officially opened on 21 September with the Hon Robyn Parker, (Minister for the Environment, Minister for Heritage and Member for Maitland) cutting the ribbon with students from Ellerston Public School.

The opening was the culmination of years of planning and hard work. It grew from the idea that dramatic action was needed to prevent the catastrophic loss of the devil. Devil Ark founder and Director John Weigel said he had been "watching in horror as devil numbers nosed-dived. By 2008 there were only around 35% of the population remaining.

"First we tried traditional zoo-like enclosures. But we quickly realised the devils were losing their wild traits and didn't breed as readily, and it was an expensive approach! My idea of Devil Ark grew out of this ... but it took another two very busy years before construction of Devil Ark began".

Construction involved building an extensive array of enclosures, crèches and small pens covering over 50 ha of land in the high country of Barrington Tops.

In January this year the first stage of what is acknowledged as Australia's most ambitious conservation project came to life with the arrival of the first 43 devils at Devil Ark.

Our emphasis is on maintaining wild-type behaviour



The Hon Robyn Parker MP announced the NSW government would provide \$150,000 a year for the next four years. This will go towards fence construction and some operational costs of Devil Ark.

by keeping devils in a natural bush setting within appropriate social groups. "Everything is a learning experience as nothing like Devil Ark has been done before. Fortunately, and to the great excitement of everyone involved in the project, it is already apparent that the Devil Ark model is well and truly on the right track," said John.

We had thirteen litters of joeys born in the first year, which is a huge boost to the program, and comes as a relief to John, who said "having so many females with young within our first year of operations is a testament to our free-range 'environmental enclosures' approach".

These devils represent hope for the future of the Tasmanian devil. Their off-spring (along with other devils brought to the Ark) will eventually be returned to the wild to provide a lasting chance of survival.

We are indebted to everyone that has supported Devil Ark and helped us get this far. Thank you!



Devilish Encounters is a quarterly publication of



DevilArk

ABN 51 417 871 203

PO Box 737 GOSFORD NSW 2012

Tel 1300 553 565

Fax 02 4340 2990

www.devilark.com.au

info@devilark.com.au

facebook.com/tassiedevilark

youtube.com/tassiedevilark

New devils arriving

The population at Devil Ark will expand on 21 December with the arrival of 10 breeding devils from Tasmania.

These two-three year old devils (5 each male and female) have been in quarantine to ensure they are healthy and free of DFTD. They add new genes to the stock at Devil Ark and are critical to ensure we capture as much diversity as possible.

The ZAA* stud-book will determine which devils they'll be placed in enclosures with.

Getting ready to graduate

Planning has begun to move our 'teenagers' into their free range enclosures. These devils are now of reproductive age and have been living in 'crèches' (learning social skills like dominance, and pack order) since their arrival at Devil Ark earlier this year.

The young devils will now be configured into breeding groups of between six and eight. The male : female ratio will be even and ages will be staggered, which mimics the wild mix. They are carefully chosen to ensure strong genetic diversity; however, same sex siblings may stay together which provides comfort and security as they enter the next stage of their lives.

ZAA* maintains a 'stud book' – a database of devils across Australia in the insurance program. The stud book dictates which devils should be housed together in time for February's breeding season.

We recently received our breeding recommendations from ZAA to for appropriate enclosure placements for our teenagers.

Director's message

Welcome to the first issue of the Devil Ark Newsletter. What a great opportunity to reflect on how far Devil Ark has progressed in such a short time. It was three years ago that the concept of Devil Ark was presented at the four-day IUCN Tasmanian Devil workshop in Hobart. Stage 1 was completed in January 2011 after just four months of construction, and an initial founding group of 48 Tasmanian devils were released into six spacious 'free-range' enclosures.

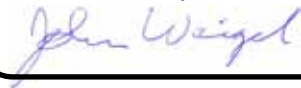
The accelerated progression of the facility has continued, extending the holding capacity now to over 100 devils. With a forecast population of 200 devils by the end of 2012, fundraising for the next development stage is under way. Our 'big systems' approach is working, evidenced by the cost efficiency, breeding success, and preservation of wild-type behaviours achieved.

There are many people to thank for these early successes, but I would like to single out the vision and support managers of FAME (Foundation for Australia's Most Endangered Species), the Save the Tasmanian Devil Program, and the regional zoo body - Zoo & Aquarium Association (ZAA) for their generous provision of expertise and the financial support. Devil Ark would not have been a possibility without the incredible generosity of the Packer family, who provided use of the beautiful Tasmania-like 500ha property upon which to build a true Ark.

It is now clear that our 'experimental' model is working. But our challenge now extends well beyond developing and implementing husbandry systems for the devils. We are equally engaged in both the fundraising and construction 'businesses' – the key ingredients to the success of the program.

All of us involved in Devil Ark thank you for your support and donations. I personally take great joy in wishing you and yours a wonderful festive season and a devilishly happy 2012.

Yours sincerely



John Weigel AM, Director – Devil Ark

First generation

The first generation of devils born at Devil Ark will soon be naturally weaning. Until now the only way we have been able to see joeys is with the assistance of a night camera positioned at their den. Every night mum would go and feed but leave the joeys behind to play.

However at 10 months these little ones are now ready to disperse from the den and mum. This means that soon we'll also get an official count of how many joeys were born in our first year breeding.

The weaned young will be crèched with 10 other joeys and during the next year they'll learn how to be wild devils. They'll also be micro-chipped and have a thorough health examination and preventative treatment.

Because Devil Ark wants to maintain wild behaviour we haven't intervened with the litters to count the young. However we are confident we have around 20 joeys born this year at Devil Ark!

Are you interesting in adopting one of our first born?
Please contact us on 1300 553 565 to learn more, or
check out our website www.devilark.com.au

* The Zoological Aquarium Assoc (ZAA)

Homes for growing population

In mid-November construction started on new enclosures at Devil Ark and so did the rain!

There was a sense of history repeating itself. This time last year when development of Devil Ark began in earnest, the Barrington Tops experienced its wettest summer on record, slowing progress considerably.

To build the three new 3ha free-range enclosures, a 10 metre wide line was cleared to ensure no branches could land on the fence to enable devil escapes. Cyclone mesh was attached to the 150 poles needed for the 500 plus metres of fencing. And because devils are excellent diggers and climbers the fences needed a few precautions, like being buried ½ metre below ground and having a tin slippery surface at the top.

Each enclosure was equipped with six dens (devils are solitary animals and sleep alone). Trees felled during the fence line clearing were piled up and covered with 50 tonnes (two truck-loads) of soil. The three males and three females in each enclosure will use these structures to make their dens.

To enable keepers to learn more about devil behaviour; fenced feed stations were built in each enclosure. To eat, devils pass through a small gap fitted with a microchip reading device. We expect to learn critical information including dominate devil behaviour and frequency of night feeds this will assist with improving breeding results.

The uncharacteristically wet weather slowed down work and resulted in the frequent bogging of the vehicles and excavator, but thanks to the commitment of the construction team, the enclosures were finished well before the arrival of our new devils.

Newly constructed devil den

Sincere thanks to all our donors, especially FAME. Without your assistance it would not have been possible to expand so quickly!



Adopt a devil

Meet six month old Tinker. She has been adopted by Ellerston Public School. The school ran a competition amongst their students to name the devil and Tessa (pictured) was the winner. Tinker means “brand new day” in an aboriginal dialectic. It’s a fitting name for one the first generation of devils born at Devil Ark.

Preparing for breeding season

Females have started body changes in readiness for next year’s breeding season that starts in February.

As we know devils are feisty animals, so during mating a male bites the female’s neck releasing chemicals to make her calm and resistant to struggle. As protection, the fat around a female’s neck is now thickening. Their pouches are now also deepening and become active.

Females will start establishing dens and building nests and then select their males. She may have multiple sires though; if a male leaves the den for food, another may sneak in and mate with her.

February 2012 will see Devil Ark’s second breeding season where we continue working towards our goal of 360 devils by 2016 and 1,000 devils by 2021.

Breeding devils away from the disease front

New reports from Tasmania have brought the terrible news that the fatal devil facial tumour disease has reached the marsupial’s last stronghold in the island’s north-west. (See article on back page).

Until recently it was believed this corner of Tasmania was free of the devastating disease that is sending the Tasmanian devil rapidly towards extinction in the wild.

At Devil Ark we are now even more concerned about the future of the Tasmanian devil; we think the disease will take off now that it has crossed the final barrier of the Great Western Tiers.

Time is quickly running out to breed as many devils as possible away from the Tasmanian disease-front. We must act quickly so we can preserve genetic diversity and expand the insurance population of Devil Ark.

Poor devils: Cancer spreads to last Tasmanian devil refuge

Following is an extract from news reports by Herald journalist, Andrew Darby:

"A young male trapped by wildlife researchers near Burnie is believed to have contracted devil facial tumour disease, adding to two earlier confirmed cases in the same area.

The cancer has ravaged devils, threatening their extinction in the wild. Numbers have plunged by 84 per cent since the disease first took hold in the late 1990s, according to the Save the Tasmanian Devil Program.

Scientists have seen

the disease steadily sweep from east to west across the island over the past decade, to affect devils in the island's north-west, where their numbers are still healthy.

For many years scientists focused on finding a vaccine. Cedric, a captive-born male, was immunised with dead tumour cells by University of Tasmania researchers. When he showed signs of resistance, live cells were tried. This worked at first, but then he succumbed to the cancer and died a year ago.

Hamish McCallum, a specialist in Tasmanian devils at Griffith University, said recently: "Given the limited progress in developing vaccines against human cancers, despite huge investment in research, hoping a vaccine can be developed against [devil facial tumour disease] seems optimistic."

At the same time, researchers were trying ways

of keeping devils alive in the wild. After watching her study population devastated on the Freycinet peninsula on the east coast, pioneering devil researcher Menna Jones led work suppressing the disease further south on the Forestier peninsula.

One idea was to trap and cull diseased animals. Combined with a barrier to be erected across the peninsula, would this slow the disease to manageable levels? The six-year-long trials have since folded.

"Our models show that even for a trappable animal like the Tasmanian devil, catching enough of them to eradicate disease is a tall order," says University of Tasmania zoologist Nick Beeton.

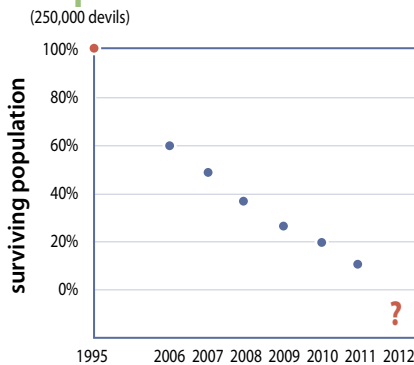
Tasmanian devils are by nature fighters and, sadly, they are effectively killing each other. With one bite, a diseased devil will transfer the cancer into the healthy flesh of another.

The disease kills quickly. A devil found with one lesion on the first day, had five of them just eight days later. Typically a devil will be dead around six months after the disease first appears.

The failure of experiments to control the disease, slow decision-making and doubts over long-term funding have raised concerns about how the crisis is being handled.

About the only positive news for the Tasmanian devil's survival is insurance programs (like Devil Ark).

Source: Sydney Morning Herald, 9 Nov 2011.



I want to give hope to the Tasmanian devil

- Debit my credit card for \$ _____ Once off Annual Monthly Quarterly
 Mastercard Visa No _____ Exp ____ / ____
 I enclose my cheque/money order made payable to FAME (Devil Ark)*

Signature _____ Email _____

Name _____

Address _____

Postcode _____ Telephone _____

Tel 1300 553 565 www.devilark.com.au PO Box 737 Gosford NSW 2250

All donations over \$2.00 are tax deductible * your tax-deductible receipt will be issued by FAME