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## Welcome

...and sadly, farewell. This is my last Newsletter with the Save the Tasmanian Devil Program as I'm moving to Queensland for family reasons.

But happily, the future for the Save the Tasmanian Devil Program looks both stable and promising. A five-year plan is being prepared to guide the program from July 2008 to June 2013, including investment in a rapidly growing insurance population, looking at options such as fencing to isolate and maintain disease-free populations of wild Tasmanian devils, as well as, perhaps, insurance populations on off-shore islands.

Community support for the Program continues to delight. Last month, hundreds of footy fans helped raise funds for the program, just by attending a double-header at Aurora Stadium involving Hawthorn and the Tasmanian Devils Football Clubs. AFL Tasmania, the Tasmanian Devils Football Club and the Hawthorn Football Club are hoping to raise \$10,000 to help save the devil. All these funds go to the Save the Tasmanian Devil Appeal, managed for the program by the University of Tasmania Foundation [www.utas.edu.au/devilappeal](http://www.utas.edu.au/devilappeal).

To date, hundreds of thousands of dollars raised by this appeal have supported research and management that is proving critical for saving the devil: such as research



*Errol the devil and Hawka at Aurora Stadium in Tasmania.*

by Alex Kreiss and Greg Woods at the University of Tasmania and Kathy Belov at the University of Sydney.

In closing, I'd like to commend the dedication and professionalism of everyone I've worked with in the Save the Tasmanian Devil Program. I'd also like to acknowledge the passion and determination of the whole community, including school children, wildlife park operators and veterinarians, in the fight to save our iconic Tasmanian devil – a fight we must not lose.

**Steve Smith, Program Manager**



Australian Government



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# Project Ark continues to expand

Phew! After four months of trapping at 11 different sites, our captive insurance population has been boosted by a further 63 juvenile Tasmanian devils.

These 'Project Ark' devils could play an important role, if ever needed, in helping re-establish healthy wild populations in Tasmania. Already 73 Tasmanian devils have been sent to mainland wildlife parks, where they're happily breeding, far away from the threat of DFTD.

"Most of the new devils are putting on weight and settling in well," said Hayley Ricardo, one of the utility officers at the Program's purpose-build quarantine facility.

"We put their food in the pens during the day for them to eat at night, but a few are starting to be active during the day. We try to discourage that – after all, these are wild, nocturnal animals, and we want them to remain that way."

Taking advice from the Australasian Regional Association of Zoological Parks and Aquaria (ARAZPA), the Save the Tasmanian Devil Program has determined that we need around 500 breeding devils to maintain the genetic diversity of the species over a period of 10 to 20 years.



A total of 340 individuals were trapped in the latest intake, but only the 'best of the best' were included in the insurance population. The focus was on recently-weaned devils, (around one year old) from undiseased populations, that didn't have signs of biting or fighting. Research shows that DFTD is far less common in young devils. Only a small number of juveniles were taken from each site to minimise the impact on the local remaining population.

"We're now in the process of entering all the information from our trapping into a database and analysing the genetic make-up of the insurance devils," said Dydee Mann, coordinator of the Western Intake 2008. "Once this is completed, it will allow us to compare individual devil movements from previous years to this year. By genotyping the insurance devils, we can look at their relatedness and make sure we breed them to maximise the genetic diversity of the Ark population."

To date, there has been very strong evidence that DFTD has not spread further west than the Cradle Mountain area. Trapping for the recent intake was carried out at least 50km further west of the known disease front, just to be cautious.

## The folly of roadkill

In an attempt to cut the number of devils lost to roadkill, warning signs for motorists to drive 45km/h from dusk to dawn have been placed on Southern Tasmania's Forestier Peninsula, between Dunalley and Eaglehawk neck.

In 2006, roadkill claimed one quarter of all the Tasmanian devils known to have died in this area. It's a distressing statistic for any region, but particularly since the Peninsula is the site of the Tasman Disease Suppression Trial – a management program which is trying to eradicate the Devil Disease from the isolated-peninsula's wild population.

"As the devil population dwindles, roadkill becomes so much more significant," said Chrissy Puk, scientific

officer with the Save the Tasmanian Devil Program. "We're heading towards a time when every animal is very valuable, so the folly of roadkill is silly.

"We should be driving according to the conditions – and here in Tasmania, the conditions are abundant wildlife. Let's drive accordingly."

The Department of Infrastructure, Energy and Resources produced the signs, placing them along the Arthur Highway in January, 2008.





# The inheritance of life

A male Tasmanian devil that has developed an immune response to the Devil Facial Tumour Disease is being paired with a female so that researchers can study the inheritance pattern of his immune responsive genes.

Associate Professor Greg Woods, from the University of Tasmania's Menzies Research Institute, explained that this male devil (Cedric) was injected with dead DFTD tumour cells. Cedric produced an immune response as his body recognised the DFTD tumour cells as foreign, resulting in an immune response.

This is particularly promising because it is the lack of genetic diversity among Tasmanian devils that is a key factor in the transmission of DFTD. Devils don't produce immune responses to DFTD because the diseased cells are too similar to their own cells.

But Cedric is from the west-coast of Tasmania and has different genes to the east-coast devils, which have been decimated by DFTD.

"Devils, like everyone else, have a group of genes call MHC," Greg said. "They are the genes that respond to anything that is

foreign. If their genetic diversity is low, the MHC diversity is low.

"But what we've found is that Cedric's MHC is sufficiently different to the tumour for the diseased cells to be recognised as foreign."

Greg believes it is likely that there are three genetic groups of devils in Tasmania. Some devils may be so genetically similar that there's very little that we can do to save them from DFTD. A second group may be so genetically different that they are naturally resistant to the disease. And a third group may lie somewhere in between and it is this group that may benefit from a vaccine.

The next phase of the trial began late last year when Cedric was injected with live tumour cells. To date, Cedric has not shown any signs of devil facial tumour disease, providing encouraging support that some devils could be protected with a vaccine.

In the mean time, Cedric is getting to know Betty – a lovely two-year-old female. It is hoped they will start a family, allowing the Menzies Researchers to further explore the potential of Cedric's genes.



## Independent assessment of toxicological data

A chemical cause of the Devil Facial Tumour Disease (DFTD) is unlikely. This was the conclusion of two independent reports that assessed toxicological data from both healthy Tasmanian devils and animals suffering from the disease.

The two reports ([www.tassiedevil.com.au/disease.html](http://www.tassiedevil.com.au/disease.html)) also indicated that although levels of dioxin and other chemicals were detected in devil tissues, they were at levels to be expected for a 'top of the food chain' species such as the Tasmanian devil.



None of the chemicals measured were at significantly different levels in diseased and healthy animals and there was no evidence that any of the chemicals were linked to DFTD.

The two assessments were undertaken by Dr Tony Ross, a specialist veterinary pathologist with a strong background in toxicology, and Professor Michael Moore, the Director of the National Research Centre for Environmental Toxicology.

In his report, Dr Tony Ross said a small number of chemicals may warrant further investigation, including arsenic and some of the brominated diphenyl ethers. But he added that although the results would be of interest to some scientists, they did not show a link between chemicals and DFTD.

Further work in this field will include discussions with the project's scientific staff, as well as independent toxicologists, to identify any other areas that may need further examination.

## The story so far

- Devil Facial Tumour Disease (DFTD) is a contagious cancer that spreads between individuals, probably through biting. The foreign cells of the tumour aren't rejected by the animal's immune system because of a lack of genetic diversity among Tasmanian devils.
- The first signs of the disease were observed in 1996. Small lumps in and around the mouth develop into large tumours on the face and neck. Once the cancer becomes visible, death usually follows within months.
- There has been a 64 per cent decline in spotlighting sightings since the disease emerged. DFTD has been confirmed at 63 locations across more than 60 per cent of the State – the latest being Natone, south of Burnie. There has been a 95 per cent decline (approximately) in spotlighting sightings in the north-east, where DFTD first emerged.
- DFTD is likely to occur across the range of devils within three to 20 years. Currently, however, there is strong evidence that the disease has not spread further west than the Cradle Mountain Area (more specifically, West Pencil Pine, 20km north-west of Cradle Mountain).
- The program to Save the Tasmanian Devil is a joint strategy of the Australian and Tasmanian Governments. It features an insurance population strategy, collaborative laboratory-based investigations of the disease, and disease-suppression programs of wild populations.



*Disease  
distribution  
February  
2008*

## Devilish folk

The diversity of expertise among members of the Save the Tasmanian Devil Program plays an important role in furthering our knowledge. Our quarterly newsletter gives us the opportunity to introduce members of the team.

### Caroline Donnelly

If you ask Caroline Donnelly what her official title is within the Save the Tasmanian Devil Program, she'll laugh and say 'general dogs-body'. The truth is that Caroline is involved in numerous projects within the program, but they all have the same purpose: getting YOU involved in the fight to save the Tasmanian devil.

"I'm pretty much the first point of contact that the public has with the devil team," said Caroline. "My phone number is splashed everywhere."

When you want to report a roadkill devil or you're interested in volunteering on a trapping trip – even if you just want information about the Devil Facial Tumour Disease – it's Caroline that you'll probably end up speaking to.



*Caroline Donnelly with Errol the devil.*

But it's one of Caroline's newest projects that has her most excited – the development of a database that will be a storage unit for all Tasmanian devil research. This database will allow for the analysis of information by scientists around the world, and will also feature levels of access for the general public.

"It's great that the community can have input into our program because people have really big hearts," Caroline said.

"Everyone, from school students to retirees, wants to help. And they all can! People can raise money, or join one of our many volunteer programs.

"The Tassie devil is an amazing little critter. People tell me over and over that they don't want it to become extinct. That's what we all hope."

# Devil listed as 'endangered'

Last month, the Tasmanian devil was listed as "Endangered" under Tasmania's *Threatened Species Protection Act 1995*.

"The upgrading in status from vulnerable to endangered, recommended to me by the Scientific Advisory Committee, reflects the reduction in the devil population, resulting from Devil Facial Tumour Disease," said David Llewellyn, Minister for Primary Industries and Water.

A decade ago, devil numbers seemed to be at a record high. But sightings of the Tasmanian devil have declined by 64% since the mid 1990s, when signs of the Devil Disease were first observed.

"The change in the Devil's status reflects the real possibility that this iconic species could face extinction in the wild within 20 years," Mr Llewellyn added.

## Round the traps

### International bridges

Bridge players from the US, Norway, Denmark, India, New Zealand, Canada and all Australian mainland states have expressed their interest in attending the Save the Tasmanian Devil Bridge Congress, to be held in Devonport during October 2008.

The three-day event, which culminates in a presentation evening on October 12, is the highlight of the calendar for the Tasmanian members of the group from the bridge website 'Bridge Base Online' (BBO).

"As well as the planned International Congress, we also post daily, on-line tournaments on the BBO website," Maureen said. "As the daily tournament is in progress, we post information about the plight of the Tasmanian devil to people around the world."

For more information, go to [www.freewebs.com/bbotassiedevils](http://www.freewebs.com/bbotassiedevils)

### Information is crucial

Brisbane schoolgirl Ceilidh Bishop has made it her mission to help save the Tassie devil after visiting one of our insurance populations at Queensland's Currumbin Wildlife Sanctuary.

One of Ceilidh's fundraising ideas was to hold a 'Little Devils Day' at her school on May 30. More than a free-dress day, Ceilidh has asked the teachers

to make sure that one hour of learning about Tassie devils is included during the day.

"Learning about something means we can do something about it," Ceilidh said.

Ceilidh's website [www.tassiedevilmancer.com](http://www.tassiedevilmancer.com) has already raised more than \$1,200 for the Save the Tasmanian Devil Program.

### Home away from home

The 15 Tasmanian schools that won the National Geographic Kids Explorer Challenge will host their North American counterparts next month in support of the Tasmanian devil insurance population.

Schools students from both Tasmania and North America were invited to design a

Tasmanian devil enclosure, and think up ways to raise money to purchase shrubs for this facility.

The National Geographic Kids Explorer Challenge is an annual competition in the United States that takes North American children to wonderful destinations around the world (like Tassie!).

## Freaky feats

Exploits of sword swallowing, glass walking, jelly wrestling and knife throwing were reported in Hobart and Launceston in April. No, it wasn't Steve Smith's farewell party – but the Tasmanian Variety Freak Show did deliver two nights of magic and mayhem in support of the Tasmanian Devil Appeal ([www.utas.edu.au/foundation/devil.htm](http://www.utas.edu.au/foundation/devil.htm))

Famous Berlin electro-punk band Die Roten

Punkte was part of the line-up, which also included the notorious electric burlesque act The Emma Dilemma Show. Joining these acts were Tasmanian sideshow performers Samora Squid (sword swallower and contortionist - pictured) and The Human Bridge (glass eater, glass walker).

For more information, see [www.myspace.com/tasmanianvarietyfreakshow](http://www.myspace.com/tasmanianvarietyfreakshow)





## Were your school colours Black and White?

The second, annual Black and White Day went national this year, with more than 200 schools and businesses holding fund-raising events on May 16 to support the Tasmanian devil.

It was Nature Nic, as 10-year-old Hobart schoolboy Nic Bonnitcha prefers to be known, who came up with this inspirational idea. In 2007 he raised close to \$14,000 for the Save the Tasmanian Devil Appeal by encouraging school children to wear black and white clothes and to make a gold coin donation.

"Whenever anyone hears the story of the devil, they always want to help," said Nic. "This animal doesn't belong to Tasmania alone. It belongs to all Australians."

As a reflection of the excitement that Black and White Day is generating across Australia, Nature Nic was invited by Terri Irwin to spend the day at Queensland's Australia Zoo.

"We got a phone call saying that Terri Irwin wanted to speak with us," said Nature Nic's Mum, Linda. "We thought it was a joke, until we heard

the American accent.

"But it turned out to be a fantastic event. Nic did interviews with radio, TV and newspapers, explaining that the devil will die if we don't all act.

"Terri told Nic how proud she was of him, and that Steve would have been proud too."

Meanwhile our own Tasmanian devil mascot – Errol – spent Black and White Day making special appearances at schools across Southern Tasmania, kindly chauffeured by the team from radio station HOFM.

The following day, Errol was also spotted at York Park, Launceston, cheering for Hawthorn and the Wrest Point Tasmanian Devils at the fundraiser organised by AFL Tasmania.



Photo: Megan Slade

(Top) Terri Irwin invited Nature Nic to Australia Zoo to help spread the message of Black and White Day. Meanwhile our own mascot, Errol (left) spent Black and White Day visiting local schools.



## The art of education

Internationally-renowned nature photographer Darran Leal will promote the cause of the Tasmanian devil with an exhibition at the Cradle Mountain Chateau in November this year. A percentage of the sale of prints during the exhibition will also be donated to the Save the Tasmanian Devil Program.

"While it appears that we haven't caused this particular disease within devils, we know that humanity in general places a lot of pressure on wildlife," Darran said. "So if there's any way that we can help to correct that, then I want to be part of it. And to me, education about wildlife and nature is crucial."

To discover more about Darran's work, go to: [www.wildvisions.com.au](http://www.wildvisions.com.au)



Photo: Darran Leal

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• Written by Janette Kirkman • Designed by Emil Kolbe