

"Huge" step forward with devil cancer vaccine

July 22, 2015 **Andrew Darby** *Hobart correspondent for Fairfax Media*

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Healthy captive Tasmanian devils take a break.

Photo: Dan Fellow

The long battle to save the Tasmanian devil from its deadly facial cancer is set to pass a vital milestone, with the first release into the wild of immunised animals.

The 19 captive-bred devils have all responded to a trial vaccine developed by a team at the Menzies Institute for Medical Research in Hobart, who have been fighting the disease for nearly a decade.

"This is huge," said David Pemberton, manager of the Save the Devil program. "It's the start of what we are calling wild devil recovery."

Dr Pemberton said the disease had now "spotted" ahead of the main front to the island's west coast and was closing on the north-west tip of Tasmania.

"It's inevitable that it will move across the lot, but it also appears that devils will persist among it with around 10 to 20 per cent of the population."

The new vaccine has been refined from a version that initially worked, but failed to save, a well-known devil called Cedric.

Since that 2010 loss, the devil's genome has been mapped, and Menzies Institute scientists have published work in the journal "Vaccine" this year showing it is possible to modify the cancerous cells.

Immunologist Ruth Pye said the current vaccine treated the cancerous cells in a different way, to make them more visible to the devil's immune system.

It also included a substance called an adjuvant that enhanced the devil's immune response to the vaccine.

"We don't know yet what level of protection the vaccine will offer, but the early results are encouraging," Dr Pye said.

Trials with the new vaccine began earlier this year, and the devils to be released have already been immunised up to four times.

They will receive a further booster before their September release at the coastal Narawantapu National Park in the state's north, she said.

Wildlife officers hope to be able to track any difference the micro-chipped animals make at Narawantapu, which Dr Pye said once had a very robust devil population, decimated by the disease still present at a low level.

"The advantage for us will be having a big sample size to check," she said. "We hope that our vaccine will provide some protection for them," she said.

Tasmanian devils are top native carnivores on the island and Dr Pye said their loss would damage its ecosystem.

Costly insurance populations are being maintained in captivity around Australia in case the marsupial, becomes extinct in the wild.