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## Little Penguins all but doomed

By Billy Adams

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The main reason for the demise was the red fox, an introduced species to Australia that had exploited the Warrnambool low tide. Photo / Getty Images

Seven years ago the Little Penguins of Middle Island appeared all but doomed.

Where a colony of more than 1,000 had once thrived, only four pairs of less than happy feet remained. It seemed only a matter of time before their nemesis - the fox - would finish the job.

Then two floppy-eared shaggy canines ambled onto the rocky outcrop, and a remarkable recovery began.

Today the penguins are again thriving. At last count, breeding adults numbered almost 200. Not one has succumbed to the bushy-tailed predator since the dogs arrived.

"It's been incredibly effective," says conservationist Kristie King of the radical trial using Maremma guardian dogs.

Over 2,000 years ago they protected sheep from predators like bears and wolves.

Nowadays you're more likely to find them looking after other animals; like chickens, goats and, as a result of the successful penguin program, a nearby flock of endangered seabirds.

After the dogs started patrols at Point Danger on the Victoria coast, a population of Australasian gannets experienced dramatic recovery.

Conservation volunteers about an hour's drive along the famous Great Ocean Road still pinch themselves at the rising numbers of penguins on the uninhabited 1.5 hectare island that sits just 100 metres off the popular tourist town of Warrnambool.

Standing 45cm tall and weighing just 1kg, the appropriately-named Little Penguin is the smallest of the species, found only in southern Australia and New Zealand.

No-one is quite sure how long they've been coming to breed on Middle Island, raising chicks in burrows between July and March each year. Experts estimate the colony peaked at around 1,500 penguins, and there were 700 when a researcher from Deakin University counted them returning from a day foraging at sea in 2001.

When she returned to do the same thing four years later, she could find only four.

The main reason for the demise was the red fox, an introduced species to Australia that had exploited the Warrnambool low tide, when the channel separating the island from the mainland is just a few inches deep.

Authorities tried to shoot, trap and poison the foxes, without success.

"Shooting foxes is not cost-effective," said local chicken farmer Alan 'Swampy' Marsh at the time.

He used Maremmas to protect his chooks from foxes, and suggested penguins would benefit too.

"Having a \$200 dog that only needs a pat on the head and a handful of dried food each day is a real cost-effective way to do it."

Dave Williams, an environmental science student who was working part-time at the farm, loved the idea.

Kristie King recalls: "Dave and I went through university together and he mentioned the idea to me and I thought it sounded a little bit odd. He put it in a uni assignment."

Williams also took a proposal to Warrnambool City Council, which agreed to the groundbreaking trial.

"No-one in the world had used Maremmas for conservation management so we didn't know how it would go," says Ian Fitzgibbon, a council employee who worked on the project for seven years.

"We went into it with our eyes wide open."

When he called King to ask her to oversee the monitoring of penguin numbers, she was taken aback.

"I was very surprised at the time but they've certainly proven us wrong," she says.

"We haven't had a single fox kill since the Maremmas were introduced, and that was after almost 13 years of very regular and severe fox predation."

It hasn't been all plain-sailing for the recovering penguins.

The first two dogs sent to the island - Oddball and Missy - got fed up and swam back to shore.

Following the arrival of two younger dogs, Electra and Neve, several penguins were found dead.

Humans got part of the blame. Some people had trespassed onto the island, playing with the dogs

that in turn tried to play with the penguins. They died of fright. Fitzgibbon believes others succumbed as the dogs - later discovered not to be pure bred Maremmas - tried to protect them.

"At that time of year the young penguins are coming out and are quite vocal and distressed while waiting for their parents to return and feed them," says Fitzgibbon.

"We think the dogs picked up the penguins and put them over near their own area to try to protect them.

"That's what they do with chooks, but the penguins are a wild creature and we think they effectively died of stress-related injuries."

Project leaders say lessons were learned. The incumbent Maremmas - siblings Eudy and Tula - were socialised with the penguins as eight-week-old puppies.

They've been there for four years. During breeding season they patrol the island, marking the territory with their scent, and barking at any intruders. They spend the other six months at Swampy's farm, roaming with the free-range chickens. Fortnightly counts conducted by King and dozens of community volunteers quickly established that the penguins were unperturbed by the dogs' presence.

"The volunteers count the penguins coming back up after a day at sea and going back to feed the young in the burrows," says Fitzgibbon.

"That gave us a good indication that although the Maremmas were there, the penguins were still going about their daily routine."

Community support is important to the success of the project.

Earlier this month, members of the public were invited for the first time to the end of season party organised by King's volunteer group, Warrnambool Coastcare Landcare.

"We had 70 people there and it was a really good opportunity to share the project with people who might not be able to come to a penguin count," says King.

"There's a really strong sense of ownership in the community for the penguins."

With an estimated eight foxes per square kilometre in the Warrnambool area, Fitzgibbon says no-one involved can afford to let their guard down.

"When foxes were at their peak in the early 2000s we had incidents where they killed more than 100 penguins in one night," he says.

"When you take that into consideration, and the fact we now have around 200 penguins, it still might only take two or three nights for the colony to be wiped out."

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