

NATURE

Raising the barred

A Merino property is coming to the rescue of the eastern barred bandicoot, a marsupial previously declared extinct in the wild.

STORY BRON WILLIS PHOTOS ANNETTE RUZICKA



Odonata founder Nigel Sharp and biodiversity director Annette Rypalski release an eastern barred bandicoot (opposite) on Mt Rothwell.

The long, pointy nose of an eastern barred bandicoot is hidden under straw in the darkest corner of a cardboard box. Named for the beautiful bars or stripes on its back, the rabbit-sized creature is about to be released into an area that its kind has not roamed for 40-odd years.

The humans gathered around the box are holding their collective breath. Each person has played a part in the eight-year journey to bring this bandicoot to its new home at Tiverton, a 1000ha property in western Victoria, purchased in 2011 with the aim of providing habitat for this species. Tiverton is believed to be the largest fenced, predator-free area in Victoria.

Phones and torches illuminate the bandicoot's path as the evening light dissipates. The silence is broken with cheers only when the bandicoot, after being gently pushed out of its box and prodded, finally hops away.

Annette Rypalski has been across both the big picture and the daily minutiae of the ambitious program that has worked towards this moment. She's the biodiversity director of Odonata, a not-for-profit organisation that operates conservation reserves.

"This is such a huge moment for us," says Annette, and for more than just a moment, she is lost for words. Annette blames the long night before, spent trapping bandicoots on Mt Rothwell, another Odonata property, where the population was established and has lived until tonight.

"The most significant outcome of this release will be the dramatic increase in eastern barred bandicoot numbers for the first time in conservation history."

Once widespread across the grasslands and grassy woodlands of Victoria, the eastern barred bandicoot was declared extinct in the wild in the late 1980s. Its last wild population was found clinging to life in the shelter of car bodies at the Hamilton rubbish tip, but subsequent efforts to bolster it failed and some of the last wild bandicoots were taken into a captive breeding program in 1998.

As part of a species recovery effort involving state and federal bodies, zoos and philanthropists, bandicoots first arrived at Mt Rothwell in 2004 and at times up to 80% of the remaining population was housed there. Since then, the breeding program has gone gangbusters, with the population peaking at 1500 in good years. The bandicoots have a 12.5-day gestation period, so numbers can increase quickly.

Tonight's release of six bandicoots at Tiverton is a huge step towards the eventual downgrading of the species on Australia's threatened species lists. A former Merino station, Tiverton had been earmarked by The Nature Conservancy as high-quality grassland habitat due to its history of low-impact grazing, so when it came on the market The Nature Conservancy contacted Odonata founder Nigel Sharp. While many conservation projects remove stock from habitat as a priority, Nigel's team carried out grazing trials on Mt Rothwell to test how the

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bandicoots fared living alongside sheep. The bandicoots were not only able to live with the sheep, but they were found to contribute to increased soil health (because their digging aerates the soil). Nigel hopes the bandicoots will contribute to healthier grasses and an increase in the quality of Tiverton's wool, which already attracts record prices.

After Tiverton was purchased, the next phase was the building of the 19km, \$750,000 predator fence – a crucial element to the bandicoots' survival – and then ridding the place of feral predators. Predicted to take six months, the eradication took three years, primarily due to the incredible smarts of two cunning, persistent foxes.

Then Annette and her offsiders had to learn how to trap and move the bandicoots. "They're fast and they have little quirks," she says. "They can become trap-shy. So, for a long time they were too wild to trap. We actually had to run around with butterfly nets to catch them ... It could take 10 people to catch one bandicoot."

The 40 eastern barred bandicoots that will be released on Tiverton over the coming weeks carry carefully crafted genetics, the result of extensive research by an ecological geneticist from the University of Melbourne, Andrew Weeks, and his team. Andrew was behind an idea to crossbreed the mainland subspecies of the eastern barred bandicoot (whose genetic diversity has been slowly diminishing) with the



Tasmanian subspecies (whose genetics were strong).

Andrew remembers being good-naturedly laughed at back in 2009, when he first suggested this. "We have crossed two populations (or sub-species) that have been isolated for 15–20,000 years," he says. "It's quite novel."

It's believed that the population's genetics will help the bandicoots adapt to climate change. "We're getting fitter, healthier animals, equal sex ratios and they're fighting strong ... so we know it's working," Annette says.



CLOCKWISE FROM TOP: Annette Rypalski with project delivery coordinators Dale Crisp (left) and Sarah Box with their dingoes, used to sniff out foxes and cats on Tiverton; Dale places bandicoot boxes onto Tiverton in preparation for their dusk release; an eastern barred bandicoot explores Tiverton's lush grasslands.

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