



Postcards to home

Once widespread across Western Australia, chuditch suffered a drastic population decline after European settlement. Conservation efforts have now restored the species to such an extent that animals from local populations are helping to re-establish numbers in South Australia, with some very positive results.

by Rhianna King, Kelly Rayner, Brent Johnson and Lizzie Aravidis



Chuditch or western quoll (*Dasyurus geoffroii*) are Western Australia's largest carnivorous marsupial. Their characteristic white spots are believed to help break up their outline while moving through the woodlands at night, hunting for insects, birds, lizards and small mammals that make up their diet. Chuditch once occurred across 70 per cent of mainland Australia. However, with the arrival of Europeans and the ensuing introduction of predators, and land clearing, the species suffered a dramatic population decline. By 1994, when the first recovery plan for the species was prepared, chuditch were only found in the south-west of WA – in an area thought to be about five per cent of its former range.

In an effort to recover the species, the then Department of Conservation and Land Management devised a number of strategies to bolster the population. Translocations were a key component of the plan and a captive colony was established at Perth Zoo. Between 1990 and 2000, more than 330 individuals were bred and were translocated to six sites, at Julimar State forest, Lake Magenta Nature Reserve, Kalbarri National Park, Cape Arid National Park, Mt Lindesay National Park and a trial release at Lane Poole Reserve. By 2013, monitoring data indicated there were more than 10,000

individuals in the wild. A new recovery plan was written, which reflected the success of the previous actions and indicated that it was time to investigate reintroducing chuditch to other parts of Australia.

FAR AND WIDE

In 2013 Parks and Wildlife was approached by the South Australian Department of Environment, Water and Natural Resources, in partnership with the Foundation for Australia's Most Endangered Species, to provide chuditch for a translocation into the Flinders Ranges National Park, where they were last seen in the 1880s. Research indicated that the Western Australian population was robust enough to support individuals being taken to form a new population, especially considering that females are capable of raising up to six young in a breeding season.

A plan was developed to release up to 40 Western Australian chuditch into the Flinders Ranges in 2014 and, if everything went well, additional animals could be released in both 2015 and 2016. Previous translocation experience showed that male chuditch tended to move further away from their release point than females, possibly in search of a mate. It was decided that female chuditch would



Previous page

Main Juvenile chuditch.

Photo – Jiri Lochman

Inset left Flinders Ranges National Park.

Photo – Len Stewart/Lochman Transparencies

Inset right Parks and Wildlife technical officer Sean Garretson releasing a chuditch at Julimar State forest.

Photo – Melissa Jensen

Above left South Flinders Ranges.

Photo – Jiri Lochman

Above Parks and Wildlife technical officer Kelly Rayner releasing a chuditch at Julimar State forest.

Photo – Kelly Rayner/Parks and Wildlife

be released at the site first, to give them an opportunity to establish, before the males were released four weeks later. Once the translocation plan had been finalised and the necessary approvals had been sought, Parks and Wildlife staff began work to collect chuditch destined for a new home.



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TRAPPING

The first objective was to collect 20 suitable females for the new population. Trapping was first carried out in Perup Nature Reserve – three and a half hours south of Perth – over four nights in March 2014. Parks and Wildlife staff set 100 traps, which yielded 27 chuditch. Of these animals, nine females were considered suitable for the translocation project. Each chuditch was aged and assessed for its overall health, based on their parasite load, body, coat and teeth condition and overall temperament. Only animals aged between one and three years old, and in good health, were considered for translocation. Then, in the following week, Parks and Wildlife staff travelled two hours north of Perth to Julimar State forest to carry out the second trapping event. This time, they set 151 traps over four nights and collected 11 suitable females – bringing the total number of females destined for South Australia to 20.

Once trapped, the chuditch bound for a new South Australian home were transported to purpose-built pens at the Native Animal Rescue facility (affectionately known as ‘Chuditch Hotel’) – a volunteer wildlife refuge in Malaga. Volunteers built 20 pens using funding and materials sourced by Native Animal Rescue and furnished them with a nest box, plants and hollow logs and branches for climbing. The chuditch were housed individually and fed mice, chicks, whitebait, boiled egg and carnivore pellets.

Once at the Native Animal Rescue facility, each animal was given a health check by the resident veterinarian and fitted with a radio collar that would enable them to be tracked once they were released at Flinders Ranges. Then, on 1 April 2014, the females were loaded onto a plane as precious cargo bound for Wilpena Pound in the Flinders Ranges, where it was hoped they would give the species a new lease of life across some of its former distribution.



Above left Parks and Wildlife’s Sean Garretson, Brent Johnson and Kelly Rayner putting a radio collar on a chuditch at the Native Animal Rescue facility in preparation for release.
Photo – Melissa Jensen

Top ‘Wandoo’ a female chuditch that was translocated to South Australia.
Photo – Kelly Rayner/Parks and Wildlife

Above ‘Chuditch Hotel’ at the Native Animal Rescue facility.
Photo – Lizzie Aravidis

The trapping process was then repeated at both Perup and Julimar four weeks later to source males. On 29 April 2014, the males were flown to South Australia to hopefully meet up with the females.



BUILD IT AND THEY WILL COME

Once they arrived in South Australia, the Western Australian chuditch, plus four from a captive population in the Northern Territory, were welcomed to country by about 80 people who had gathered for a traditional blessing ceremony. Among those gathered were members of the Adnyamathanha people, to whom chuditch are a totem animal known as idnya.

The chuditch were released at two sites: Wilpena Pound and the Wilcolo Track. To test the impact of the release, some were released directly into the park, while others were released into pens with some food and water, to be set free into the park once they had had a few days to acclimatise to their new environment. Neither approach appeared to be more or less successful than the other.

SOME GREAT SIGNS

It will be some time before the success of the program can be determined but the initial signs are positive. The radio collared animals were monitored each day for a month, using an aircraft fitted with tracking equipment, and ground tracking was used to respond to any likely mortalities. Trapping was carried out about four to six and 12 to 16 weeks after the releases in the hopes of recapturing every chuditch to assess their physical condition, as well as to check whether they were reproducing. All but three of the original translocated animals have been recaptured. Camera traps were also

used and individual animals were identified by their spot patterns.

The theory that males would remain in proximity to the females was found to be correct. Most pleasing has been the discovery that 13 of the original 21 females have been found with pouch young, with an average of six young each. Chuditch are believed to be occupying as many as 250 sites, including rabbit burrows, rock crevices and hollow trees and logs.

While cat control was carried out on the area before the animals were released, including the removal of 50 cats from the area, unfortunately predation by feral cats has claimed some of the translocated individuals. While this is disappointing, it's not a surprise and chuditch have already proved they can survive in environments where feral cats are present in WA. With targeted cat control where necessary, program managers are optimistic that, like their western relatives, the South Australian population will thrive. And, who knows, maybe one day this population will be used to translocate to other semi-arid and arid parts of Australia where this species once occurred.

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Above Wilpena Pound, Flinders Ranges – one of the release sites.

Photo – Bill Belson/Lochman Transparencies

Above right Chuditch are known as idnya in South Australia.

Photo – Jiri Lochman



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For information about the Foundation for Australia's Most Endangered Species or to support their work in the recovery of species including the chuditch (idnya) go to www.fame.org.au.