

RESTORING THE BALANCE

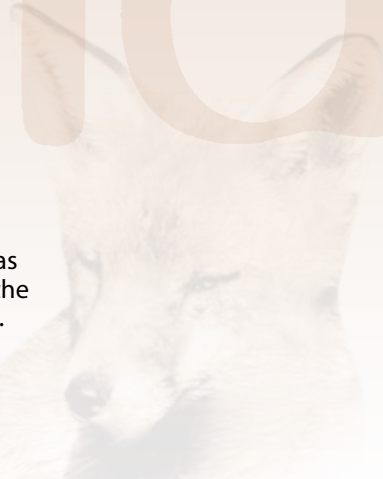
25 years of wildlife protection



Western
Shield

by Sophie Henderson

From humble beginnings as an operation to control foxes in 1996, *Western Shield* has grown to become Western Australia's leading wildlife recovery program and one of the most comprehensive wildlife conservation programs ever undertaken in Australia.



For a quarter of a century, *Western Shield* has been protecting some of Western Australia's most threatened native animals from introduced predators, specifically the European red fox (*Vulpes vulpes*) and feral cat (*Felis catus*).

Launched in 1996, the program is one of the most comprehensive wildlife conservation programs undertaken in Australia.

The program has led to significant population increases for many native species, including the numbat, woylie, western brush wallaby, and black-flanked rock-wallaby, including through translocations for reptile and bird species like the western swamp tortoise and western ground parrot.

The primary tool used to manage these introduced predators is landscape-scale baiting, which covers approximately 3.8 million hectares of land across Western Australia.

Run by the Parks and Wildlife Service at the Department of Biodiversity, Conservation and Attractions (DBCA), the *Western Shield* program is reducing the impact of foxes and feral cats on WA's native animals, particularly threatened species.

DBCA Executive Director of Conservation and Ecosystem Management Dr Fran Stanley said the program started with Operation Foxglove in 1994, using 1080 baits to control foxes in the northern jarrah forest.

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Main Juvenile numbat (*Myrmecobius fasciatus*) at Dryandra Woodland.

Photo – John Lawson

Inset far left and right Feral cat and fox.

Photos – Babs and Bert Wells/DBCA

Top right School students learn about *Western Shield*.

Top far right *Western Shield* coordinator Ashley Millar with a numbat in Dryandra Woodland.
Photos – DBCA

Above right Juvenile woylie (*Bettongia penicillata*).

Photo – Sabrina Trocini



Learn more about the program's success

Scan this QR code or visit Parks and Wildlife Service's 'LANDSCOPE' playlist on YouTube.

“Operation Foxglove was only possible after significant scientific research by the likes of Dr Jack Kinnear which demonstrated the impact foxes were having on native wildlife and the benefits of using 1080 to control this introduced predator.”

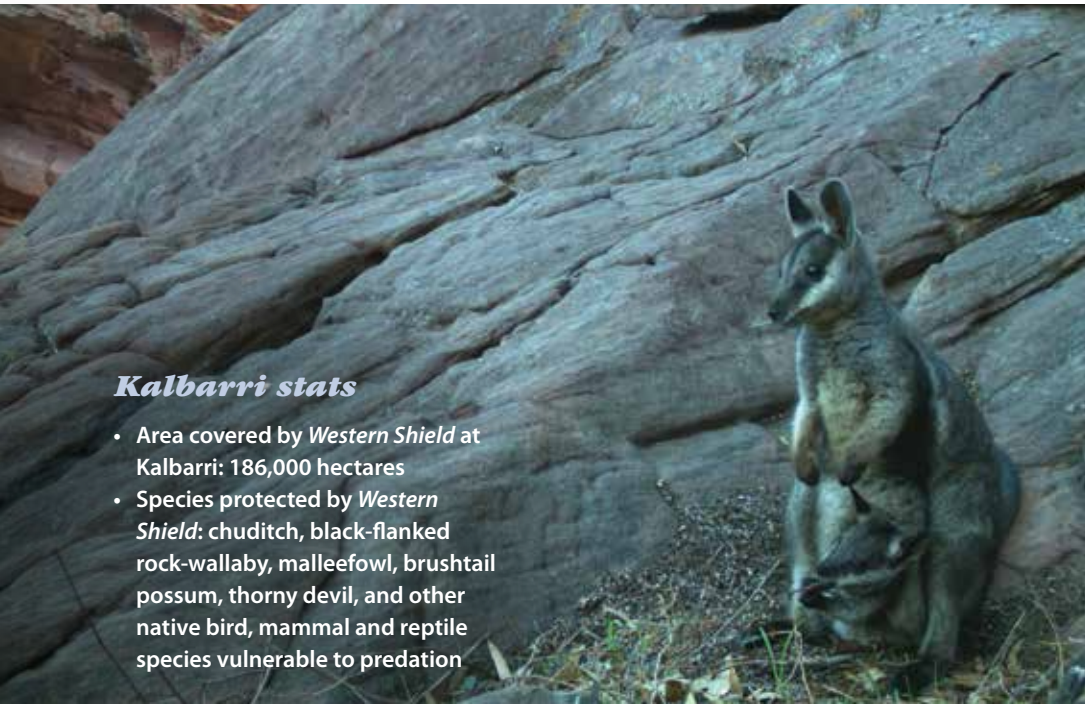
“The success of controlling foxes and increasing the abundance of predator-sensitive species like the woylie led to *Western Shield* being established in 1996 and expanding to other sites in the south-west, then to other parts of the State, including the Pilbara, Midwest, Wheatbelt and South Coast,” Dr Stanley said.

This expansion occurred under the bold direction of then Executive Director of the Department of Conservation and Land Management, Syd Shea (see ‘Guest column’ on page 7).

“*Western Shield* was successful in reducing fox numbers in baited areas, which led to increases in native species, some to such an extent that they were removed from the threatened species list. However, feral cats proved much more difficult to control and evidence suggests that removing foxes from the landscape allows feral cat numbers to increase,” Dr Stanley said.

“After around a decade of research by DBCA scientists to develop the feral cat bait, *Eradicat*®, cat control began to be integrated into the program.”

Partnerships are integral to the success of the program. Efforts to control foxes and feral cats across different tenures and neighbouring lands create larger impact areas, providing enhanced protection for native fauna but also for farmers in protecting livestock.



Kalbarri stats

- Area covered by *Western Shield* at Kalbarri: 186,000 hectares
- Species protected by *Western Shield*: chuditch, black-flanked rock-wallaby, malleefowl, brushtail possum, thorny devil, and other native bird, mammal and reptile species vulnerable to predation



Top Remote camera image of black-flanked rock-wallaby (*Petrogale lateralis lateralis*), Kalbarri.

Photo – DBCA

Above Fauna monitoring in Kalbarri.

Above right Scats of chuditch (*Dasyurus geoffroii*) spotted in Kalbarri after a successful reintroduction of the species to the area.

Photos – Anthony Desmond

The program is run with support from partners including Alcoa of Australia, Tronox, Western Areas Limited, South32 Worsley Alumina, Newmont Boddington Gold, Commonwealth Department of Defence and Ventia.

Western Shield also contributes to a range of educational programs in both primary and secondary schools, helping to improve the community’s knowledge of threatened species and the role fox and feral cat management can play in ensuring the survival of native fauna in the wild.

KALBARRI NATIONAL PARK

Kalbarri National Park provides tourists with a world-class experience and spectacular scenery, complemented by the recently completed skywalk. The park is home to a diverse range of wildlife, that has been supported by *Western Shield* since 1996.

Kalbarri National Park made national news in 2015, when a tiny population of black-flanked rock-wallabies was rediscovered in the park, after being thought to be locally extinct for 20 years. To boost conservation of this species, 72 rock-wallabies were released into the park between 2016 and 2017.

The released animals were initially monitored using radio collars to understand their movements. The collars

were later removed and the population has since been monitored using remote cameras.

Rock-wallabies continue to be recorded at the three release sites including the public lookout at Hawk’s Head, and in 2021 a rock-wallaby was sighted at the skywalk—a considerable distance from the original release sites. This information suggests the population is expanding, with intensive monitoring planned for 2022 to assess the overall health and size of the population.

The resurgence in rock-wallaby numbers in the park has been facilitated by *Western Shield*. Outcomes of the program have reduced the impact of feral cats and foxes, providing a safe environment for black-flanked rock-wallabies to thrive.

Local Nanda Aboriginal rangers facilitated the program by providing fuel and baits to the aircraft and the rangers were integral to delivering ground baiting operations.

The team has recently expanded from two to six rangers, increasing capacity to assist with operations including maintenance of cameras for predator detection and monitoring native species.

WESTERN SWAMP TORTOISE

Western Shield is also helping protect one of the world’s most critically



Above Western swamp tortoise (*Pseudemys umbrina*).
Photo – Bethany Nordstrom

Right Western swamp tortoise fitted with radio transmitter.

Top right Echidna (*Tachyglossus aculeatus*) captured on Western Shield Camera Watch.
Photos – DBCA

Far right Western swamp tortoise release east of Augusta.
Photo – Gerald Kuchling/DBCA



endangered reptiles, the western swamp tortoise, from predators.

In 2021, 73 Perth Zoo-bred western swamp tortoises were released into habitat in the State's south-west to test if developing a new self-sustaining wild population is possible for the future and to improve the security of the species across the State.

DBCA, Traditional Owners and researchers from the School of Biological Sciences at The University of Western Australia (UWA) released 16 tortoises east of Augusta and a further 57 into a swamp at nearby Scott National Park.

Forty-eight tortoises were fitted with radio transmitters and data loggers to allow scientists from UWA to continue to track the animals' movements and collect

valuable data on the outcomes of the release.

This translocation effort follows a pilot program conducted in 2016 and 2018 in the south-west to determine whether these types of habitats were suitable for the species and could provide an insurance against the effects of habitat loss and climate change on the swamp tortoises' natural habitat near Perth.

Routine fox control activities are conducted as part of the *Western Shield* program to protect the western swamp tortoise from the threat of predation.

These new habitats could complement areas of remnant bushland north of Perth that continue to provide critical habitat for the survival of the western swamp tortoise.



Citizen science

Western Shield Camera Watch hosted by Zooniverse, is an online citizen science project utilising a worldwide network of volunteers. The project has helped to identify thousands of animals from automated wildlife cameras.

Since launching in 2016, more than 9700 volunteers have registered with the *Western Shield Camera Watch* project and have helped with the huge task of identifying animals captured on thousands of images from automated wildlife cameras deployed in conservation lands in the northern jarrah forest.

The photos are used to record species distribution and better understand the success of wildlife recovery efforts.



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Lesson plans and activities on threatened species are available in the Western Shield Action Pack, free to download from dbca.wa.gov.au/westernshield

