

Box-gum woodland

Critically endangered

Target: manage critical threats and increase woodland community resilience

The *Saving our Species* (SoS) program has increased the resilience of around 2600 hectares of box-gum woodland (white box – yellow box – Blakely’s red gum grassy woodland and derived native grassland), a critically endangered ecological community (CEEC), in the NSW south-west slopes and southern tablelands. This has been achieved through targeted management actions such as weed control, restoration planting, habitat enhancement, management of grazing and community engagement.

This once widespread ecosystem, distributed from the Queensland border to the Victorian border, is characterised by open woodland with a highly diverse ground layer composed of grasses and wildflowers. It provides critical habitat for a diverse array of animals, including threatened species like the squirrel glider, superb parrot and diamond firetail. This ecosystem forms the productive base of the agricultural sheep–wheat belt, so it faces ongoing threats from agricultural activities such as grazing and cultivation, land clearing, fragmentation, dryland salinity and invasive plants. Climate change, through increasing temperatures and droughts, is also adversely affecting the community. The project directly responds to these threats and applies active management interventions to enhance this CEEC’s unique floristic values and improve structural complexity and habitat quality for animals.

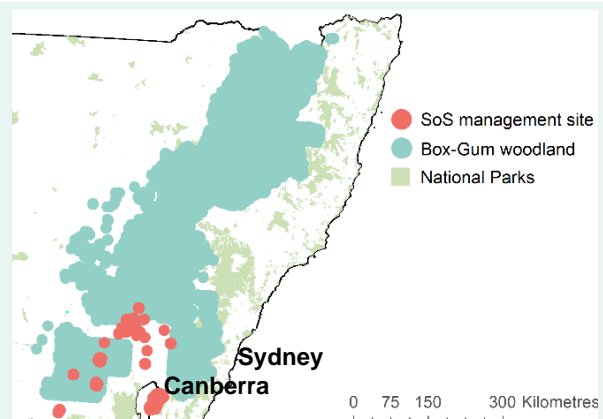
Notable outcomes delivered in the Dananbilla and Illunie Nature Reserves focus area include:

- increased resilience of over **2600 hectares** of box-gum woodland through management actions
- over **5000** trees and shrubs planted, restoring **200 hectares** of woodland structure
- **650 hectares** fenced to manage kangaroo grazing pressures.

Trajectory: baseline

While the area of box-gum woodland is increasing through the restoration of secondary grassland to woodland, changes in overall ecosystem condition will only be apparent over more extended timeframes.

Currently, SoS management actions are only being undertaken in southern New South Wales.



Partners

The box-gum woodland project is led by the NSW National Parks and Wildlife Service in partnership with SoS, South East and Riverina Local Land Services, Hilltops Council, private landholders and volunteers from the ACT National Parks Association.

The project is supported by additional SoS box-gum woodland projects delivered by the NSW Environmental Trust and the SoS Saving Our Superb Parrot project.

What did we find?

This project has improved the condition of approximately 2600 hectares of box-gum woodland across 22 sites, ranging in size from 1600 hectares in Dananbilla Nature Reserve to 2 hectares in Monteagle Cemetery.

Tree planting at woodland density has been undertaken on both public and private lands, restoring woodland structure and connecting habitat patches.

Critical threats to box-gum woodland in small isolated reserves have successfully been managed, including weeds, grazing and firewood collection.

Targeted ecosystem interventions in Dananbilla Nature Reserve have enhanced and expanded habitat resources for several threatened animal species.

The 2017–19 drought, with record low rainfall across the project area, was a hindrance to the project, reducing the survival of plantings and suppressing positive environmental responses to management actions.

Associated grazing pressure from kangaroos in nature reserves reduced ground cover and suppressed plant diversity when monitored in 2019. However, recovery is visible since the end of the drought. Fencing was installed to enable ongoing management of herbivore grazing.

Ongoing management of direct threats to the community and restoring degraded habitats will be important in retaining box-gum woodland and its significant floristic and habitat values.



Box-gum woodland, Bennett Springs Travelling Stock Reserve. Photo: Susan Jackson/DPIE

Restoring ecosystem and habitat functionality within Dananbilla Nature Reserve

Large-area management of woodland in Dananbilla Nature Reserve has captured structural and floristic variability to support both plants and animals at a local landscape scale.

Tree and shrub plantings have occurred at a broad scale to restore woodland structure over previously cleared areas.

Habitat quality has been improved at targeted species-relevant locations by planting groves of shrubs and restoring important habitat elements. For example, supplementary planting of casuarinas and cypress pines will provide critical winter food resources for diamond firetails.



Scattered tree plantings expanding woodland in Dananbilla Nature Reserve. Photo: Brian Slee/DPIE

Saving our Species is a NSW Government flagship program delivered by the Environment, Energy and Science Group in the Department of Planning, Industry and Environment. To find out more about threatened species in New South Wales and the *Saving our Species* program, visit the [Saving our Species Program webpage](#).