

Spinifex – what’s the point of protecting it?

Spinifex grass, belonging to the genus *Triodia*, play a significant ecological role in semi-arid environments.



Spinifex habitat

Spinifex plays a vital role in soil stabilization, habitat creation, nutrient cycling, and supporting a range of desert-adapted wildlife.

What do they do?

1. Stabilise soil through an extensive root system that helps bind the soil together
2. Create microhabitats for lizards, birds, small mammals
3. Provide nesting sites and food source for native species
4. Provide organic matter to the soil as they decompose, which can improve soil fertility over time and support plant growth
5. Capture and retain moisture, providing a source of water for animals and insects in arid regions
6. Provide shelter and forage for a variety of desert-adapted species, including insects, reptiles like the jewelled gecko, dunnarts and birds
7. Store carbon in their above-ground and below-ground biomass, mitigating the effects of climate change by removing carbon dioxide from the atmosphere



Female short-tailed grasswren



Spinifex plant



Male short-tailed grasswren

Spinifex and the Short-tailed Grasswren

The short-tailed grasswren (STGW) is only found in South Australia (SA), with the Flinders Ranges subspecies considered vulnerable.



Spinifex habitat

STGW inhabit rocky hillsides and gullies, stony rises and ridge-crests covered with mature spinifex grassland. They forage mostly on the ground, eating seeds, fruits, insects and other invertebrates and lay two eggs in a nest hidden in spinifex. STGW's have short, rounded wings so they can't undertake long flights. Instead they hop, run, bound or bounce between bushes and tussocks of grass.

They are habitat specialists and occupy a small area in SA, within which it occurs at a small number of locations. Suitable spinifex habitat distribution, combined with the species being a weak disperser results in low spreading rates and limited gene flow between populations.

The presence of STGW on the Bunkers Conservation Reserve has been confirmed with photographs of a male and female bird.

What it means

Spinifex provides a number of important ecosystem services and creates microhabitats for a number of Australian native species. Its abundance and influence on many species make it a “foundation species”.

The largest subpopulation of STGW was reported to be in the south-east of Ikara-Flinders Ranges National Park (I-FRNP). Extensive surveys undertaken in 2024 in the I-FRNP as part of the Bounceback Program failed to detect STGW. Populations in hills east of Craddock appear to have disappeared due to drought. Overgrazing killing spinifex means the status of STGW populations around Belton is not clear.

This means the population of the STGW on the BCR is important if the species is to survive.



Spinifex habitat



Male short-tailed Grasswren
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What can you do?

1. Try an avoid disturbing spinifex habitat. Do not drive or park on it
2. If you are in spinifex habitat walk lightly, do not trample spinifex, do not smoke or use equipment that might start an unmanaged wildfire.
3. Take any rubbish away with you
4. Let the YFRWPA Committee know if you see sheep in spinifex habitat as they over-graze and damage spinifex
5. Listen and watch for STGW or any of the species shown on the back of this flyer and let the YFRWPA Committee know if you see them (with GPS locations!)

Other fauna associated with spinifex habitat

Eastern striped skink (*Ctenotus robustus*)

Long-tailed, fast-moving skinks that are quite large, growing to a maximum length of about 30 cm (including the tail which can make up around 2/3 of its length)



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Spinifex slender blue-tongue (*Cylodomorphous melanops*)

Spinifex is not only the habitat of this species but also where it finds its food. It tends to wait and forage in open spaces between tussocks for prey, while relying on spinifex clumps as an escape cover if needed.



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Jeweled gecko (*Strophurus elderi*)

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The jewelled gecko is a grass-dwelling species, living and foraging almost exclusively within spinifex hummocks. Spinifex provides shelter and protection from predators. It is a nocturnal species. Its Status is Vulnerable.

Legless lizards

Unbanded Delma (*Delma butleri*)



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Small and legless, with snout to vent length of up to 9cm. The tail can be 3 times longer.

They slither across the ground like snakes, feed on small insects and shelter in grasses.

Burtons legless lizard (*Lialis burtonis*)

This lizard lacks forelegs and has only rudimentary hind legs. Skinks are the main prey item, but other legless lizards and geckos are also a part of its diet.

It requires shelter to ambush its prey and hide from predators. It is known to wave or wiggle its tail to attract prey.



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Curl Snake (*Suta suta*)

Typical length is about 40cm. This snake feeds on small reptiles, small mammals and frogs.



It is not aggressive and avoids human contact but it is venomous. Bites are not considered life threatening but medical attention is required.

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Fat tailed dunnert (*Sminthopsis crassicaudata*)

Mouse-like, and is one of the smallest carnivorous marsupials. It only weighs between 10–20 grams. Its diet includes insects such as beetles, spiders, small reptiles, and amphibians. Dunnarts store fat reserves in their carrot-shaped tail for times of food shortage.

It is eaten by other carnivores, including feral cats and foxes.



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