

# Help save the Heath Goanna

Goannas are our last remaining large, native,  
land-based predator in southern South Australia  
and they need our help!



Government  
of South Australia

Heath Goanna  
Photo: Byron Manning

# About goannas

Also known as Monitor Lizards or Varanids, there are over 30 species of goanna in Australia.

Three large goanna species occur in southern South Australia – the Heath Goanna, Sand Goanna and Lace Monitor. The Heath Goanna and Sand Goanna can be easily confused with each other; both are found on the ground, shelter in burrows, and are similar in patterning and size (1-1.5 m). The Lace Monitor is easier to distinguish from the other species as it is larger (up to 2 m), more arboreal (found up trees) and has a restricted distribution in South Australia.

## Heath Goanna

There are possibly fewer than 100 individuals left in each of the natural resources regions in which they occur!

The Heath Goanna (*Varanus rosenbergi*) is also known as Rosenberg's Goanna. It generally occupies heath, wet and dry forest and temperate woodlands usually with sandy soils and termite mounds present. They will utilise adjacent grazing land to find food, shelter, a breeding partner and to move between patches of remnant native vegetation.

### They are disappearing

The Heath Goanna was once common in many higher rainfall, cooler areas across southern Australia but is declining. It now occurs in mostly small, isolated populations in WA, SA, NSW and VIC.

### Ecology

They have large foraging areas ranging between 80 and 1,000 hectares. The female lays its eggs during summer, burying them in a termite mound. The termite mound maintains a constant temperature and humidity for incubation throughout the winter. Females, and often their male partners, actively guard new nests from predators for up to three weeks until termites have had time to repair the mound. This conceals and protects the eggs. The young hatch in spring and less than one in 12 survive their first year. Those that do survive may not reach breeding age for up to nine years.

Goannas are predominately terrestrial predators that are at their most active during the day. They assist in pest control by taking rabbits, mice and rats. They also feed on carrion, small birds, other mammals, insects, spiders, small reptiles and eggs.



Heath Goanna  
Photo: Kirstin Abley

### Conservation status

The Heath Goanna is Vulnerable in South Australia. Regionally it is classified as Critically Endangered in the Mount Lofty Ranges; and Endangered in Northern and Yorke, Eyre Peninsula, SA Murray-Darling Basin and South East regions.

### Why is the Heath Goanna endangered?

Habitat loss, degradation and fragmentation through land clearance and grazing has reduced the amount of suitable habitat available to the Heath Goanna. The main issues causing their decline are:

- Fragmentation of habitat. They need large areas of native vegetation to find enough food and maintain sustainable populations.
- Removal of termite mounds and fallen trees and logs from bush- and grazing-land. This reduces vital habitat for goannas (termite mounds are used to incubate eggs and fallen trees and logs provide shelter).
- Predated upon by cats, foxes and dogs.
- High road mortality, particularly in areas with sealed roads, higher speed limits and extensive road networks.



Heath Goanna hatchling

Photo: Byron Manning

# Distribution in South Australia

While **Heath Goannas** are still relatively common on Kangaroo Island, they are also declining there. Isolated populations occur elsewhere in the state (see map).

**Every sighting reported counts!**  
There are often less than six Heath Goannas reported each year on mainland SA.

The **Sand Goanna** is widespread throughout the state, only being absent from cooler, wetter areas (the far south-east, Kangaroo Island and high rainfall areas of the Mount Lofty Ranges). They probably only occur in very low numbers on southern Eyre Peninsula and may be absent from parts of the west coast and the Nullarbor.

Overlap zones between Heath and Sand Goannas occur in the northern Mount Lofty Ranges around Williamstown, northern parts of the South East region, on lower Yorke Peninsula, eastern Fleurieu Peninsula and possibly in some coastal areas west of Eyre Peninsula.



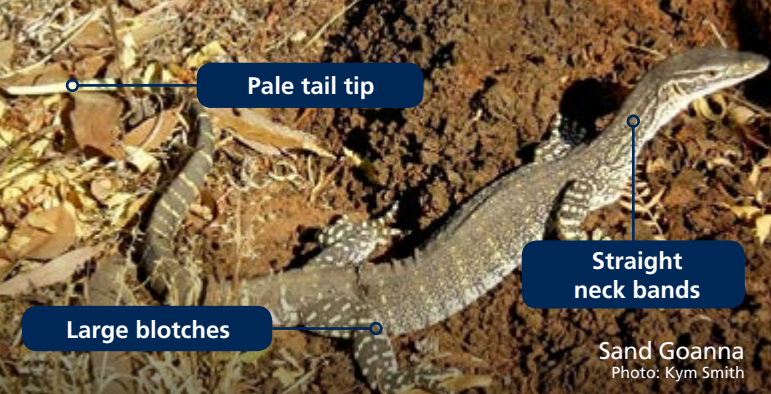
## Sand Goanna

The Sand Goanna (*Varanus gouldii*) is also known as Gould's Goanna. It has no state conservation rating, but is considered Rare in the South East and Vulnerable in the Adelaide and Mount Lofty Ranges region.

**Burrows**  
Heath and Sand Goannas both dig burrows for shelter. They retreat to these when temperatures are too low or high for normal activity, or to avoid predators. The goanna burrow entrance is characterised by an arched top and a flat bottom.



## Distinguishing features



### What do the Heath Goanna and Sand Goanna look like?

Both species are similar in size and appearance making identification difficult. Adults of both species have total lengths ranging between 1 m and 1.5 m and both vary in colour and pattern.

#### Neck

- Heath Goannas have darker bands on the neck that are curved (like a collar).
- Sand Goannas have dark bands on the neck that generally run parallel to their neck.

#### Body

- Both species have a range of pale yellow or white spots over their body and legs. These are usually arranged in bands.
- Pale spots on Heath Goannas are small compared to the often bold, large blotches that occur on the Sand Goanna (particularly on the legs).

#### Tail

- Tails of both species are usually clearly banded. The clearest feature that distinguishes between the two species is the colour of the tail tip.
- The Heath Goanna's tail tip is the same as its body colour, usually grey (with or without obvious banding).
- Sand Goannas generally have a pale tail tip (often yellow) in contrast to the rest of the tail which is darker with light bands (photo above left).

# Lace Monitor

The Lace Monitor (*Varanus varius*) occurs in the upper reaches of the SA Murray-Darling Basin, and in isolated populations in the southern Flinders Ranges and the

South East. It is unlikely to be confused with the Heath and Sand Goanna.

Lace Monitors are larger – up to 2 m, usually with distinctive, broad, alternating dark- and light-coloured bands around the snout. It also has a long tapering tail with alternating broad dark and light bands. It prefers wooded areas with large eucalypts that have hollows and is the only large goanna of the three mentioned that readily climbs trees.

## Conservation status

Lace Monitors are Rare in SA. Regionally it is Near Threatened in the SA Murray-Darling Basin, Critically Endangered in the South East, and Vulnerable in Northern and Yorke.



Lace Monitor  
Photo: Mark Hutchinson



Termite mound  
Photo: Kirstin Abley

Large patches of native vegetation with healthy termite mounds are essential to the survival of Heath Goannas.

## How you can help save the Heath Goanna

- Report any sightings of goannas, dead or alive.
- Protect native vegetation and termite mounds in your local area.
- Be a responsible pet owner by keeping pet cats indoors and dogs on a lead.
- Leave valuable habitat like fallen trees, logs and smaller timber in the bush and on grazing land.
- When driving, slow down for goannas to let them cross roads safely (and be especially mindful around road kill which may attract goannas onto the road).
- Get involved in local restoration and revegetation programs to help increase habitat and connect remnant bushland.

## Help us find goannas in SA...

If you see a goanna please get online and tell us where you saw it. Goannas are shy, so do not approach or disturb them. Do not disturb the habitat either, just make a note of the location and, if possible, take a photo. You can record your sighting at [www.discoverycircle.org.au](http://www.discoverycircle.org.au).

Do not chase, catch or handle goannas. Ensure your personal safety at all times, particularly if you see a goanna on a road. If you see an injured goanna, call the Fauna Rescue hotline on 8289 0896. You can also call in details to your local natural resources centre (details below).

*If you find a dead Heath Goanna on the mainland, please take it to your nearest natural resources centre where it can be passed on to the South Australian Museum for use in future research.*



Heath Goanna  
Photo: Ian Tanner

## Do you own a property with Heath Goannas on it?

Here are some additional ways you can help save the goannas:

1. Ensure your native vegetation is protected for perpetuity by a Heritage Agreement.
2. Fence off existing bushland to protect it from grazing and allow natural regeneration of native vegetation.
3. Control weeds using careful techniques that minimise damage to native vegetation.
4. Get involved in restoration and revegetation activities on your property.

Support for these activities is available from your local natural resources centre.



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### Further information

If you are interested in getting involved or want more information please contact us at [DEWNRThreatenedWildlife@sa.gov.au](mailto:DEWNRThreatenedWildlife@sa.gov.au)  
Phone your nearest natural resources centre or visit:  
[www.naturalresources.sa.gov.au](http://www.naturalresources.sa.gov.au)  
[www.environment.sa.gov.au](http://www.environment.sa.gov.au)

### Natural resources centres

Adelaide and Mt Lofty Ranges:	8273 9100	Kangaroo Island:	8553 4444
Eyre Peninsula:	8688 3111	SA Murray-Darling Basin:	8532 9100
Northern and Yorke:	8841 3400	South East:	8735 1177