

# Help save the Heath Goanna

Goannas are our last remaining large, native, terrestrial predator in southern SA and they need our help!



Government  
of South Australia

# About goannas

Also known as Monitor Lizards or Varanids, there are 28 species of goanna in Australia.

Three large goanna species occur in south-eastern South Australia; the Heath Goanna, Sand Goanna and Lace Monitor. The Heath Goanna and Sand Goanna are similar in size and patterning and can be easily confused. The Lace Monitor is larger, easier to distinguish from the other species and has a more restricted distribution in South Australia.

Goannas are predominately terrestrial predators that are generally active during the day. They feed on carrion, small birds and mammals, insects, spiders, small reptiles and eggs.

## Conservation status

The Heath Goanna, also known as Rosenberg's Goanna, is classified as Vulnerable in South Australia. Regionally, it is classified as Endangered in the Mount Lofty Ranges, Northern and Yorke, Eyre Peninsula, Murray-Darling Basin and South East regions.

They are disappearing

*There are possibly less than 100 individuals left in each of the NRM regions in which they occur!*

The Heath Goanna (*Varanus rosenbergi*) 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, VIC and NSW.



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



## Sand Goanna

The Sand Goanna, (*Varanus gouldii*) also known as Gould's Goanna, is widespread throughout Australia except in the extreme south-east of the country and along the east coast where rainfall is higher. Generally they occur in the drier sandy areas of the state, where large areas of this species' preferred habitat still remains. It is not listed as threatened.



# Heath Goanna

## Where do they live?

The Heath Goanna 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.

## Ecology

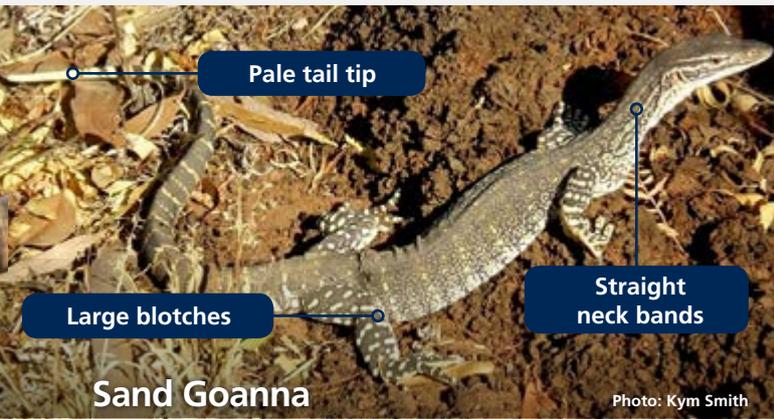
They have large foraging areas ranging between 80 and 1000 hectares. The female lays its eggs during summer, burying them in a termite mound. The termite mound maintains a constant and correct temperature and humidity for incubation throughout the winter. Females, and often their male partners, actively guard their

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.

Both the Heath and Sand Goannas dig burrows for shelter. They retreat to these when temperatures are too low or high for normal activity, or to avoid predators. Note the characteristic shape of the goanna burrow entrance; it has an arched top and a flat bottom.



Photo: Kristin Abley



Sand Goanna

Photo: Kym Smith



Heath Goanna

Photo: Richard Garnham

## 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.

## Distinguishing features

### Tail:

The 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)

- the Sand Goanna generally has a pale tail tip (often yellow) in contrast to the rest of the tail which is darker with lighter bands (photo above left).

### Neck:

- the Heath Goanna has darker bands on the neck that are curved (like a collar)
- the Sand Goanna has 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:
- the pale spots on Heath Goannas are small compared to the often bold, large blotches that occur on the Sand Goanna (particularly on the legs).



Photo: Mark Hutchinson

## Lace Monitor

The Lace Monitor (*Varanus varius*) has a restricted distribution in South Australia, occurring in the upper reaches of the SA Murray-Darling Basin and an isolated population in the southern Flinders Ranges.

It is unlikely to be confused with the Heath and Sand Goannas. The species is larger and usually has 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. The Lace Monitor prefers wooded areas with larger eucalypt trees with hollows.

## 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 below).

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.

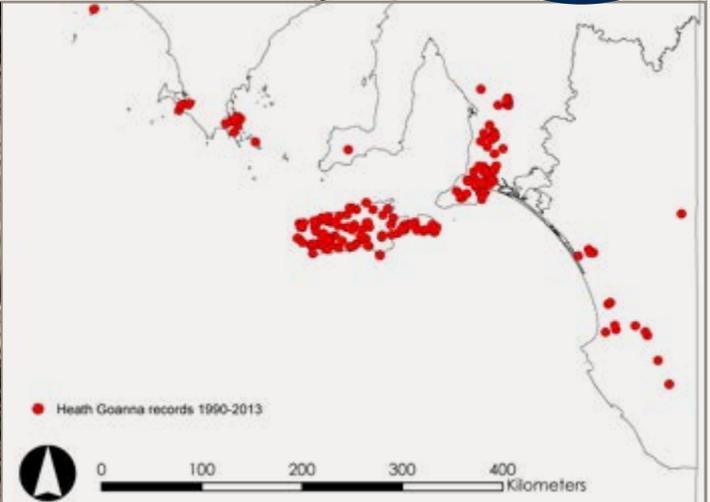
Overlap zones between Heath and Sand Goannas occur in the northern Mount Lofty Ranges around Williamstown, northern parts of the South East region, on lower Yorke Peninsula, eastern Fleurieu Peninsula and possibly in some coastal areas west of Eyre Peninsula.

In the last three years there have only been 18 recorded sightings of a Heath Goanna on mainland South Australia



Photo: Kristin 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 alive or dead goannas to [DEWNRThreatenedWildlife@sa.gov.au](mailto:DEWNRThreatenedWildlife@sa.gov.au)
- 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 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.

## Report sightings

We need to know where goannas are in order to help them. You can report sightings of live or dead Heath and Sand Goannas or Lace Monitors to [DEWNRThreatenedWildlife@sa.gov.au](mailto:DEWNRThreatenedWildlife@sa.gov.au) with date, time, location, and if possible take a photo; or call 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: Richard Garnham

## 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.

### Further information

To get involved or for more information please contact [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) or [www.environment.sa.gov.au](http://www.environment.sa.gov.au).

### Natural Resources Centres

Adelaide and Mt Lofty Ranges: 8273 9100  
Eyre Peninsula: 8688 3111  
Northern and Yorke: 8841 3400

Kangaroo Island: 8553 4444  
SA Murray-Darling Basin: 8532 9100  
South East: 8735 1177