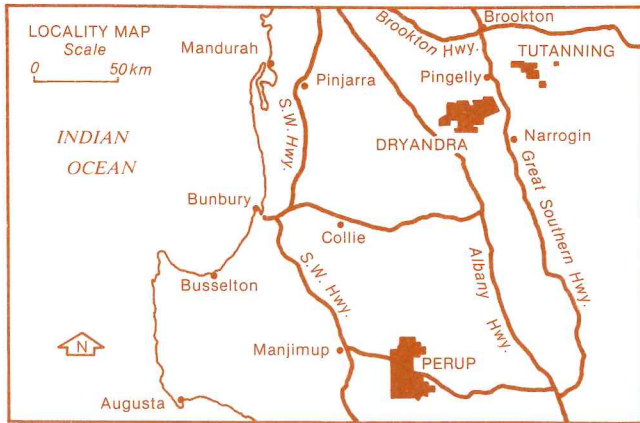


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Department of Biodiversity,  
Conservation and Attractions

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### Breeding:

Unlike many marsupials which breed only once a year, the woylie has no breeding cycle. On average, a female gives birth to a single joey three times per year. Very rarely twins may be born, but only one joey will reach maturity. The young are carried in a well-developed pouch until the joey is approximately eighty-five days old. During the last few weeks it leaves the pouch occasionally.

When it leaves the pouch, the joey continues to share the nest with its mother until the next joey emerges from the pouch. At this stage five-to-six months old, the juvenile woylie will leave and find a nesting site of its own. It is now old enough to mate.

### Food:

Many stories from the campfires of pioneer bush workers tell how woylies visited the campsite at night. Unafraid of people, they would seek scraps of meat, bread, bones and other food to gnaw on.

Current studies suggest that the woylie's main food is underground fungi. Examination of the gut content of a road casualty revealed vast numbers of fungal spores. A collection of fungi from woylie diggings examined under a microscope contained some of the same fungus spores as the road victim. These were later identified as species of Gasteromycetes — underground fungi.

Samples of scats (droppings) collected throughout the year viewed under a high powered microscope revealed numerous fungal spores.

### Predators:

The woylie, as have most Australian animals, has its natural predators. The most common of these would be the dingo (*Canis familiaris*), wedgetail eagle (*Aquila audax*) and the western native cat (*Dasyurus geoffroii*).

Past and present studies of the woylie have shown a general reduction in numbers. The woylie disappeared from the Donnybrook Sunkland area soon after the introduction of the European red fox (*Vulpes vulpes*). The first recorded sighting of the fox on the south coast was in 1915. It spread inland by the mid-1930s.

### Current Studies:

The current program by the Conservation and Land Management Department has shown that it is possible to re-establish the woylie into its previously known habitat. This is now being carried out by officers of this department. Long-term fluctuations in numbers are also being studied.

### Further Information

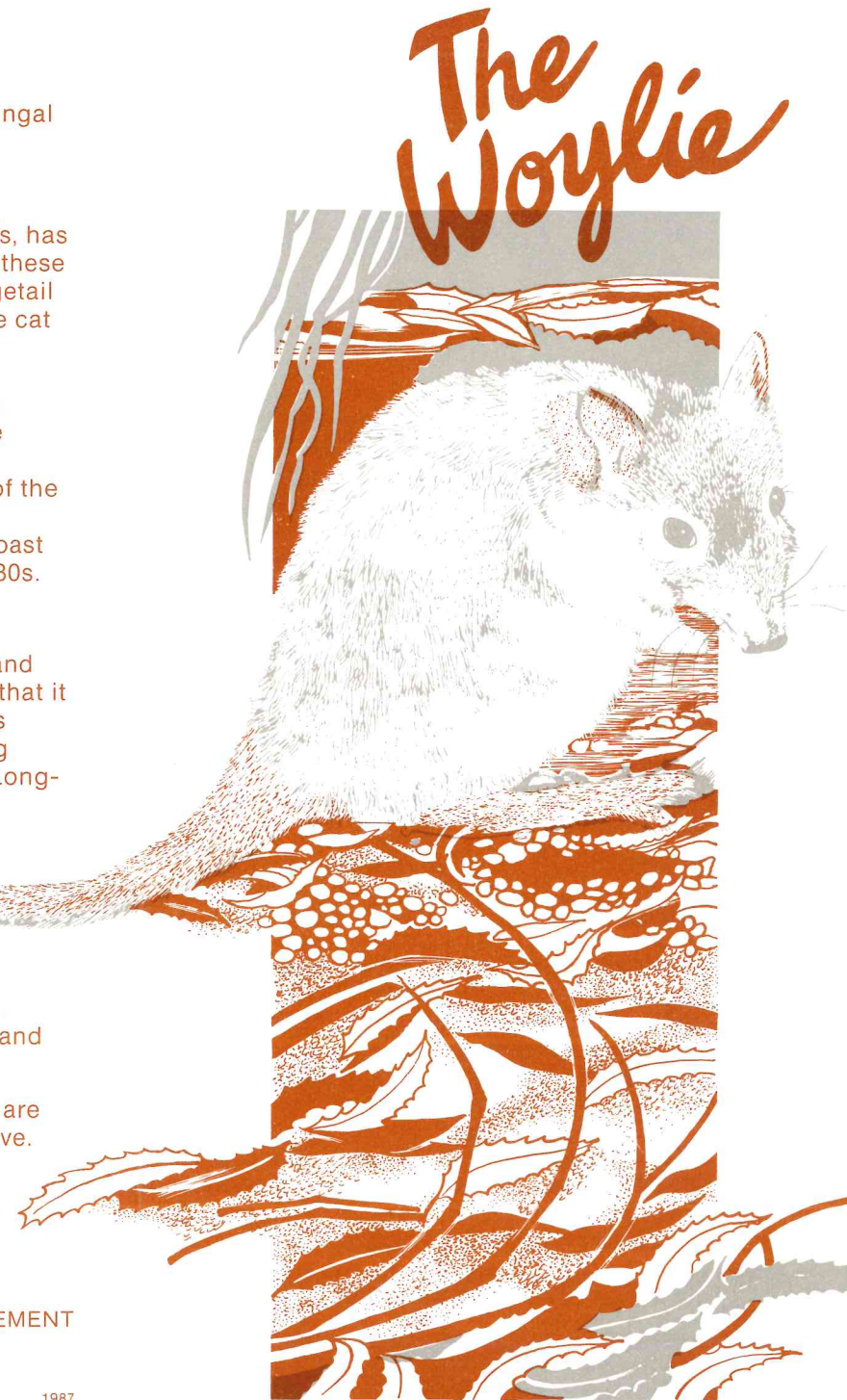
The Department of Conservation and Land Management (CALM) is responsible for the protection and management of native flora and fauna throughout W.A.

CALM wildlife officers or any of our offices are happy to answer any questions you may have. Write to:  
Department of Conservation and Land Management  
P.O. Box 104, Como. (09) 367 0333.



Department of  
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1987







The woylie (*Bettongia penicillata* GREY 1837) is a small rat kangaroo, one of three such species once widely distributed in Australia.

Once found through most of the southern half of the State and in the Northern Territory, South Australia, New South Wales and Victoria, it is now rare and endangered, being restricted to three locations in W.A.: Tuttaning Nature Reserve near Pingelly; Dryandra State Forest, 25 km north-west of Narrogin; and the Perup Fauna Priority Area, part of State Forest, 50 km east of Manjimup. A small population of rat kangaroos in north Queensland is thought to be the same species as the woylie.

A small, rabbit-sized, kangaroo-like animal, the woylie hops with head held low, back arched, and tail extended. The adult woylie weighs approximately 1.5 kg, and has a body length of 300-380 mm. Like the kangaroo, its hind feet are longer than its head.

The head, shoulders and back are yellowish-grey above, shading to almost white on the chest and stomach. The end of the tail has a well-defined blackish crest. The ears are small and rounded, whilst the "hands" have longer nails in the centre than those on the side.

### Behaviour:

The woylie is a nocturnal mammal, searching for its food from just after dusk to early morning (before sunrise). During the day it sleeps in a well-constructed grass-lined nest, and if frightened for any reason the woylie explodes from the nest, running quickly and disappearing from view, making a typical "huff huff" noise.

Its home range and nesting area is between 10-16 hectares. Although nesting sites appear to be almost exclusive to individuals, some overlap will occur between males and females. Male nesting sites never overlap, but both sexes will share feeding sites. The woylie has well-developed scent glands, similar to those in the brush-tailed possum (*Trichosurus vulpecula*), which may be used for marking territory boundaries.

### Habitat:

The woylie prefers well-drained sites with deep soils, particularly sandy gravels; it will, if possible, avoid areas of massive rock and heavy soils.

Scrub density and amount of bare ground are important factors when a woylie is choosing a nesting site. The cover must be dense enough to give protection from predators, yet still have enough open ground to allow the woylie to hop without its feet becoming entangled.



### Nesting:

The woylie builds an elaborate nest which may be constructed from a variety of materials. The shape and construction of each nest is usually the same, whether it is made from bark of the jarrah (*Eucalyptus marginata*) tree, grass or other suitable material.

Under cover of a spinifex hummock, shrub, fallen branch or limb — always well-hidden — the woylie makes a shallow depression in the soil. The dirt from this is formed into a horseshoe-shaped wall which is the framework of the nest. Using its claws, the woylie strips the bark from jarrah logs, fallen trees etc., or it may collect grasses and, on occasions, the long narrow leaves of *Persoonia longifolia*.

The nesting material is formed into a bundle, which is transported in the animal's curled up tail. Wide strips of 2-3 cm are used to form the domed roof, whilst softer fine material is used for lining the nest.

Each animal will have several nests at any one time, sleeping in whichever happens to be closest, but once a woylie has been frightened from a nest it will never return to that particular nest.