

Wombats – Australia’s Mysterious Marsupials

Some facts about wombats from the Wildlife Preservation Society of Australia

What are wombats?

Wombats are Australian marsupials, which are pouched mammals like the kangaroo, possum and koala.

There are three species of wombat; the critically endangered **Northern hairy-nosed wombat**, the vulnerable **Southern hairy-nosed wombat** and the **Bare-nosed wombat**, also known as the common wombat.

All three wombats are very similar in appearance, except for their faces. The hairy-nosed wombats have broad, rounded and flat snouts and the Bare-nosed wombat has a small, rather cute button like nose.

The hairy-nosed wombats have large ears and soft fur whereas the Bare-nosed wombat has small ears and courser fur. Wombats have stocky, muscular bodies with short legs and flat feet.



Northern hairy-nosed wombat (1)



Southern hairy-nosed wombat (2)

The Southern hairy-nosed wombat weighs between nineteen and thirty eight kilograms, the Northern hairy-nosed wombat can weigh up to forty kilograms and the Bare-nosed wombat can weigh up to a staggering fifty kilograms, with the average weight being around twenty six kilograms.

Although the wombat species are related, it is interesting to note that the Northern hairy-nosed wombats genetic code is between seven and nine percent different from the Bare-nosed wombat - the difference in genetics between humans and chimpanzees is less than one percent! Scientific evidence shows that the hairy-nosed wombats and Bare-nosed wombats have been separated for four or five million years.

What are the traditional Aboriginal names for wombats?

The Northern hairy-nosed wombat

Yaminon (St. George area, Queensland).

The Southern hairy-nosed wombat

There are no known aboriginal names for the Southern hairy-nosed wombat.

The Bare-nosed wombat

Goolung (Duduroa - Tasmania)

Wumbat (Barani – Sydney, New South Wales)

Wambad (Dharuk - Hawkesbury, New South Wales)



Bare-nosed wombat (3)



Southern hairy-nosed wombat joey in the pouch (4)

What are the other common names?

Northern hairy-nosed wombat

Queensland wombat, Queensland hairy-nosed wombat, Moonie river wombat

Southern hairy-nosed wombat

Hairy-nosed wombat

Bare-nosed wombat

Naked-nosed wombat, coarse-haired wombat, island wombat, common wombat, forest wombat.

What are the scientific names of wombats?

Northern hairy-nosed wombat

Lasiorhinus krefftii (Krefft's hairy-nose).

Southern hairy-nosed wombat

Lasiorhinus latifrons (broad-headed hairy-nose)

Bare-nosed wombat

Vombatus Ursinus (bear-like wombat)

Where do wombats live?

Northern hairy-nosed wombat

The Northern hairy-nosed wombat is found in one tiny area in Central Queensland: Epping Forest National Park (scientific). There are approximately one hundred and fifteen individuals (at last count in 2005) living in the area which is classed as a scientific park and is not open to the public. Out of the one hundred and fifteen, sixty three are males and fifty two are females. A Hair Census was conducted in 2007 and new figures should be out soon.

Only five hundred hectares of the 3,160 hectares of Epping Forest are suitable to the wombat, as most of the Park's soils are heavy clays, which aren't suitable for burrows

The Epping Forest habitat is a harsh semi-arid environment where summer temperatures reach 45° Celsius and winter minimums can fall below 0° Celsius.



Northern hairy-nosed wombat (5)



Epping Forest National Park (6)

The Northern hairy-nosed wombat is classified as critically endangered – in fact it is one of the world's most endangered animals. Although thought to be uncommon before European settlement, its decline is due to competition for food from introduced grazing animals - particularly during droughts.

Dr Alan Horsup and his recovery team, however, are working hard to save this species from extinction. A dingo/dog proof fence was completed in 2002 and in 2005 nine kilometres of water pipeline and fifteen automatic water points were installed throughout the wombat habitat. Cattle have also been removed from the park.



Rockhampton Zoo Southern hairy-nosed wombat breeding facility (7)

The Northern hairy-nosed wombat Recovery Program seeks to increase the wombats' numbers and to create new populations to ensure its long-term survival.

Queensland Parks and Wildlife Service are currently investigating the possibility of moving individuals off the park to further protect the species from decline.

The Rockhampton Zoo has sixteen Southern hairy-nosed wombats as part of a research project aimed at developing husbandry and breeding techniques that can be applied to the Northern hairy-nosed wombat's when a captive population is established.

Southern hairy-nosed wombat

The Southern hairy-nosed wombat is found in small pockets of semi-arid land in South Australia and Western Australia.

In South Australia there are only six areas populated by the wombat; all west of the Murray River. In Western Australia they can be found in a small area in the south-east corner only.

The Southern hairy-nosed wombat is currently under threat in South Australia from an infestation called Sarcoptic mange. Until recently mange has only affected Bare-nosed wombats, but there are now large numbers of Southern hairy-nosed wombats that are being found with the condition.



Southern hairy-nosed wombat and joey (8)

The second largest population of Southern hairy-nosed wombats, in the Murrayland area of South Australia, is now under major threat from the infestation.

It is thought that the Southern hairy-nosed wombat lives for approximately fourteen to fifteen years in the wild.

The Southern hairy-nosed wombat is classified as common and at low risk of extinction, however many wildlife conservation groups now consider the Southern hairy-nosed wombat as a vulnerable species due to habitat loss, eradication and the debilitating infestation, Sarcoptic mange.



Typical Southern hairy-nosed wombat habitat (9)
Can you see the wombat?

Bare-nosed wombat

The Bare-nosed wombat is probably the most known – and the most misunderstood – of the three species. Its old name “common wombat” gave the impression that it is a common animal and numbers are in abundance, which may have been the case several years ago. Today, the Bare-nosed wombat is under threat from habitat loss, urban development, the debilitating parasitic infestation *Sarcoptic mange*, eradication (some consider them pests) and - rather sadly – human abuse.

The Bare-nosed wombat is commonly found in the south eastern side of Australia within the states of New South Wales, Victoria and Tasmania. It can also be found in a tiny area at the very south-eastern corner of Queensland and in the south-eastern corner of South Australia.



Bare-nosed wombat (10)

The main habitat for the Bare-nosed wombat is forest covered and often in mountainous areas that are suitable for burrowing. There must be access to clearings with native grasses for grazing. It requires a temperate, humid micro-environment.

In New South Wales and Queensland the Bare-nosed wombat occurs mainly in sclerophyll forests, however with increased logging and farming activity wombats can also be found living in pine plantations and grazing land. In South Australia and Tasmania the Bare-nosed wombat can be found in more open vegetation including coastal scrub, woodlands and heath lands.

There is little researched knowledge on how long Bare-nosed wombats live in the wild. However it is thought that they can live for up to fifteen years. Bare-nosed wombats in captivity can live between twelve and fifteen years, however the longest recorded period is twenty six years (London Zoo).



Wombats eat mainly native grasses as well as some introduced grasses (11)

What do they eat?

Wombats feed mainly on native grass, herbivorous plants and the roots and bulbs of shrubs or trees.

They also eat bark from native trees and a considerable amount of dirt.

Favoured native grasses include kangaroo grass, tussock, wallaby grass and spear grass. Introduced grasses are also eaten.

At what time of the year are wombat young born?

The wombat is polyoestrous which means that it has a series of oestrous cycles during a season - it can breed at any time throughout the year during favourable conditions. However it is the climate in which each species lives that determines their breeding activity. The Bare-nosed wombat mostly prefers cooler climates and has been known to give birth throughout the year, however the Southern hairy-nosed wombat prefers semi-arid regions where it is hotter and the conditions are harsher and therefore the breeding periods are determined by rainfall, which is generally winter and spring in South Australia. If there is no rain there is no breeding, therefore in the wild the Southern hairy-nosed wombat is seen to be

seasonal and opportunistic. Little is known on the breeding cycles of the Northern hairy-nosed wombat; however it is considered that breeding patterns are similar to the Southern hairy-nosed wombat.

Each cycle takes about thirty three days to complete and has three distinct phases; pro-oestrous, oestrous and post-oestrous. The oestrous period, when the wombat is “on heat” is very brief, lasting only around fifteen hours. During this period the females’ urogenital opening becomes moist and swollen. The pro-oestrous period is around four to five days and the post-oestrous period takes around four weeks.

When a female approaches oestrous (in the pro-oestrous period) she displays her scats in prominent places, such as on top of rocks. The pheromones in scats indicate to a male that she is approaching oestrous and will be ready to mate.

Gestation is approximately thirty days where upon the embryonic joey crawls from the cloaca to the pouch, which is backward opening, probably to avoid dirt entering the pouch when the wombat digs. The joey attaches to one of two teats and stays permanently attached for around five months, leaving the pouch permanently at around ten months of age.

Weaning is around twelve to fifteen months of age, however the joey remains with its mother for a short time after weaning. It is usually independent at eighteen months of age. At around two years the wombat is ready to become sexually active, however it is closer to three years that a wombat first bears young.



Bare-nosed wombat (12)

How many young do female wombats have?

Normally only one young is born, however twins in Bare-nosed wombats have been recorded in captivity (Western Plains Zoo).

Due to the length of time the joey stays with the mother (eighteen months of age) it is thought that a female gives birth once every three years.



Wombat smiles (13)

Why have I not seen a wombat?

Wombats are nocturnal animals, normally venturing out of their burrows after dark and hiding under a cloak of darkness. This is particularly so in warmer climates as wombats can not tolerate heat and tend to stay underground until temperatures fall well below 25° Celsius.

To see a wombat you could try sitting very quietly near the entrance of a burrow – ensuring that you are downwind so that the wombat can’t smell you. A wombat will sometimes lie at the entrance of the burrow just before dusk, catching the last rays of light before the sun sinks.

Wombats can sometimes be seen using a spot light at night, but you need to ensure you’re very quiet as wombats have excellent hearing and may dart for their burrow if startled. In areas with high human activity wombats are not as flighty and may graze unconcerned while you watch from a distance.

Always be on your guard when “wombat watching” as wombats can run very fast and may chase you if they feel threatened or if you get too close.

Northern hairy-nosed wombats are located only in Epping Forest National Park which is a scientific park and not open to the public. Only scientist, park rangers and approved conservation volunteers have access to the site.

Mange – what is it?

Sarcoptic mange is a nasty parasitic infestation that predominantly affects the Bare-nosed wombat throughout its range. Sadly, the condition has also recently been found in Southern hairy-nosed wombat populations in South Australia; however, there is no record of the Northern hairy-nosed wombat being affected.



Southern hairy-nosed wombat with Sarcoptic mange (14)

Contrary to popular belief, the spread of mange is not entirely due to wombats - the introduced fox and feral dogs are also hosts for mange and contribute to mange dispersal. It is considered that the fox may have initially brought the mite that causes the disease to Australia; however mange was found in Tasmania before the introduction of the fox.

The mite is called *Sarcoptes scabiei* which has many different sub-species that affect a number of different hosts. Although *Sarcoptes scabiei* is transferable between different hosts - including humans - it is usually host specific and therefore is self limiting. It is thought that the mite that affects wombats - often fatally - is called *Sarcoptes scabiei var wombati*; however there have been no DNA tests to prove this – it may well be the canine variety of *Sarcoptes scabiei* that also infests wombats.

Sarcoptic mites first mate on the skin of the wombat and the male dies not long after. The female mites then burrow under the skin of the wombat leaving a network of tunnels in the flesh where eggs are laid, the female then dies at the end of a tunnel. The mite eggs are nurtured via the wombat's blood serum and hatch into larvae three to eight days later.

Larvae moult into nymphs - and nymphs into adults. During this cycle the mite feeds off the wombat's blood serum which is the main contributor to the debilitation of the wombat. Once the nymphs have turned into adults they make their way back to the surface of the skin - creating more tunnels - where they mate and the cycle starts again. The life cycle of the mite is approximately two to three weeks.



Bare-nosed wombat with advanced Sarcoptic mange (15)

Sarcoptic mange is a severe disease and affects the host in several ways.

The irritation caused by the mite burrowing under the skin causes the wombat to scratch incessantly which in itself causes often irreparable damage to the skin including mutilation and hair loss.

From the constant scratching, skin layers are taken off and raw flesh is exposed. The blood serum seeps through the mites' tunnels to the exposed flesh creating wounds and scabs. Ulcers and deep lesions develop which then cause secondary infection and blow fly strike.

Other visible symptoms of this disease are skin thickening and crusting over the body, including the eye and ear areas causing blindness and deafness. The animal becomes too weak to search for food and malnutrition and dehydration occur. The immune system becomes depleted and the wombat looks emaciated.

In advanced stages Sarcoptic mange also has a devastating effect on internal organs, including the heart, liver, kidneys, lungs and reproductive organs. Respiratory infections and pneumonia can deplete the wombat further.

Left without treatment, a wombat with Sarcoptic mange will die and death is slow and painful.

Cedar Creek Wombat Rescue (CCWR) at Central Mangrove (NSW) have been caring for wombats for several years and have a continual stream of mange affected wombats passing through their doors. It seems that mainly females without joeys are received more regularly, as wombats in this condition don't breed. Sadly, if mange is contracted by a female with a joey she will often reject it as she can't cope with the extra burden, so CCWR tend to keep an eye out for abandoned wombat joeys in the area.

Entire colonies of the Bare-nosed wombat are being lost to this horrible disease; however an affected wombat can completely recover if it is treated early. You can help save these animals by reporting cases to your local wildlife organisation or to your local National Parks and Wildlife Service office. Record the time and exact location of the wombat so that it can be found easily by a ranger or wildlife carer.

And remember - the quicker you act the more chance a wombat has of survival!

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What is being done to help wombats?

Thankfully, there is a lot being done to help all of our wombat friends.

There are several wombat conservation groups that have recently been established and are working to save all species of wombats.

The Wombat Protection Society of Australia with the help of its members is currently researching Sarcoptic mange and they believe this disease / infestation that can be reversed in many areas of Australia and that many wombats can be saved. The Wombat Awareness Organisation is also working on mange mainly in the Southern hairy-nosed wombat populations of South Australia and has implemented a conservation project for wombats.

Queensland Parks and Wildlife Service with The Wombat Foundation are working hard to save the Northern hairy-nosed wombat from extinction.

Where can I see a wombat?

There are many zoos and sanctuaries throughout Australia that display Southern hairy-nosed wombats and Bare-nosed wombats, some even have hands on experiences like Australia Zoo in Beerwah, Queensland.

Undoubtedly, however, the best place to see these wonderful creatures is in the wild. By visiting wombat areas very early in the morning or late in the afternoon you may be rewarded with the site of a wild wombat sniffing the air and readying itself for its night time explorations.



**Chisel, a Bare-nosed wombat
at Australia Zoo (16)**

What can you do to help “save wombats”?

There are many ways that members of the public can help not only wombats but all Australian native animals.

Roadkill and Injury

Each year millions of animals are killed, orphaned or injured on our roads, and sadly many die a slow and painful death.

Affected species range from lizards, frogs, birds, kangaroos, wombats and possums - and many more!

Entire local populations have been known to become extinct due to roadkill. These collisions can also result in human injury or death and costly property damage.

While preventing roadkill and injury entirely is not realistic, we have the ability to strongly reduce the occurrence.

There are several methods that can be used by road designers to reduce roadkill and injury, but what works best is motorists being aware and taking action!



Wombat hit and killed by a car - the pouch is checked for life inside (17)

Reducing the toll

There are a number of methods available to reduce roadkill, some of which have been already been implemented in parts of Australia.

These include:

- **Reflectors**, which are attached to guide posts and reflect headlights into the bush to deter animals from the road
- **Providing shelter** on the roadsides for animals to hide in
- **Underpasses** with ‘funnel’ fencing to encourage animals to cross underneath the road surface
- **Rope overpasses** or even solid, vegetated overpasses
- **Escape routes** that assist animals to cross barriers such as steep roadside banks so that they can get off the road when a vehicle approaches
- **Signage and rumble strips** to alert drivers to wildlife
- **Reduction of vegetation** and water to discourage animals from the roadsides
- **Traffic slow points** and
- **Removal of carcasses** from the roadsides to reduce deaths of scavengers.

If your council has not implemented these methods then you could lobby them and suggest that they are.

Take action!

The best way to reduce roadkill is for people to take responsibility for their own driving habits. You can do the following things to reduce your chance of hitting an animal:

1. **Watch out for wildlife.** There are more animals on the roads in spring and summer when emerged pouch young are venturing away from their parents, and some animals are basking on the warm road surface. Roadkill occurs most often between dusk and dawn when nocturnal animals are on the move.
2. **Slow down.** If you can't avoid driving at night, make sure that you leave enough time to drive slowly. Slowing down by at least ten kilometres per hour (up to thirty five kilometres per hour on fast roads) will mean that you are more in control when you come across an animal, and will also give the animal more time to respond.
3. **Honk your horn.** This will scare animals off the road. Make sure the animal is well off the road before you pass it.
4. **If it is absolutely safe to do so, move dead animals off the road.** This will reduce the attraction of scavengers such as birds of prey.



Always stop and check the pouches of dead marsupials on the side of the road to see if there is a joey inside the pouch (18)

Do not stop your car unless it is clearly visible to traffic in both directions.

5. **If you hit an animal** or encounter an injured animal, please stop only if it is absolutely safe for you to do so. Wildlife can be aggressive when scared or injured. If this is the case, mark the spot and contact your National Parks and Wildlife office or local wildlife group.
6. **Don't litter.** This may attract animals to the road.
7. **Check animals on the road.** Marsupials such as kangaroos, koalas, possums and wombats may have a joey in the pouch.

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Southern hairy-nosed wombat with Sarcoptic Mange rescued and being treated by Wildlife Awareness Organisation (19)

Report mange

By reporting known cases of Sarcoptic mange to your local wildlife conservation group or to the National Parks and Wildlife Service you can help save wombats. When it is known that an area is affected treatment can begin not only on individual wombats but also to wombat burrows.

The Wombat Protection Society of Australia has designed a "self applying" device that can be installed above a burrow eliminating the need of handling wild wombats which can be distressing to the wombat.

If you know of an area that is affected with mange note the exact area on a map, similarly if you see an individual wombat that is infected note the exact location and notify relevant agencies so that the wombat can be rescued and if possible rehabilitated. Even if the wombats condition appears severe it is kinder to act and have the animal humanely euthanased instead of allowing it to die a slow and painful death.

How is the Wildlife Preservation Society helping?

Members of the Wildlife Preservation Society of Australia have been working since the Society's foundation in May 1909 to preserve and protect Australia's wildlife in all its forms.

The "Save Wombats" project is a new one for the Society and we will endeavour to work closely with other wombat conservation groups to help save all species of wombat from decline.

The donated funds from the Society's Wombat Project will be put towards wombat conservation such as helping to understand and beat Sarcoptic mange, reducing roadkill and injury, and help to raise the profile of these mysterious Australian marsupials.

We invite you, a visitor to our website, to also help and support these programs with us to "Save Wombats" by making a donation to the conservation work of the Society.

Also check out these other wombat conservation groups that are working tirelessly to save all species of wombat before we lose them forever.

Wombat Protection Society of Australia – www.wombatprotection.org.au

The Wombat Foundation - www.wombatfoundation.com.au

Wombat Awareness Organisation - www.wombatawareness.com

Queensland Parks and Wildlife Service -
www.epa.qld.gov.au/nature_conservation/wildlife/threatened_plants_and_animals/endangered/Northern_hairynosed_wombat

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6. Andrew Dinwoodie, Queensland EPA	16. Linda Dennis, Fourth Crossing Wildlife
7. Linda Dennis, Fourth Crossing Wildlife	17. Linda Dennis, Fourth Crossing Wildlife
8. Bob Cleaver, Wombat Rise Sanctuary	18. Linda Dennis, Fourth Crossing Wildlife
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Please help us!

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