

# Australian Brush-turkeys in Sydney



Photo: Ann Goeth

Male Brush-turkey. The yellow wattle is only present in the breeding season and the male can extend it (above) or retracted it (below).



Photo: Ann Goeth

Brush-turkeys, also known as Bush-turkeys, have recently re-established populations in many Sydney suburbs, including Lane Cove and surrounds. These native birds used to occur in these areas but have been decimated by shooters, foxes, cats and habitat destruction.

The following facts make Brush-turkeys a unique and important component of our native birdlife:

- They use external heat sources for incubation - only 22 bird species world-wide use this strategy. Brush-turkeys build large mounds of organic material in which the decomposition of such material produces sufficient heat for incubation.
- The sex ratio of the offspring is affected by the incubation temperature in the mound – this is not known for any other bird.
- Their chicks receive no parental care and live independently from the moment they hatch – they are the most developed chicks of all birds.
- They play an important role in maintaining a healthy ecosystem by dispersing seeds, airing the soil, controlling insect populations and serving as food for larger birds of prey, such as Powerful Owls.
- Brush-turkeys are an integral part of Aboriginal storytime and art.

## Appearance

- Chicks are fully feathered, fluffy and brown all over. Within 2-3 weeks, they start growing the black feathers and vertical tail typical of adults .
- Adults are large birds, ca 70 cm in body length. During the breeding season, males can be distinguished from females by the yellow wattle around the neck and the more intense red colour on the head. Females are black like the males, but more drab, and they have no wattle.
- During the non-breeding season (February – July/August), males & females look alike except for the slightly longer legs and sleeker build in males.



Brush-turkey egg and two day-old chick

Photo: Ann Goeth



Photo: Ann Goeth

Brush-turkey mound; note the size in comparison to a person

## Mound-building

- Males build 1 or 2 large mounds comprised of leaf litter, decomposing vegetation and soil. Mounds can be 4-6 m wide and 1-1.5 m high.
  - Mound-building starts ca. mid August, depending on rainfall, and ends ca. mid February. Several females lay eggs in each mound, from about mid September to late January. They lay in intervals of 3 or more days.
  - Preferred locations for mounds have intermittent shade, tree litter & moist mulch, and some ground cover nearby.
  - Long trails of leaf litter along the ground hint at males building mounds.
  - Males constantly regulate the incubation temperature by adding or removing leaf litter to/from the mound. They have a temperature sensor in their palate and thus probe the soil with their beak.
- 33-35°C is the optimum incubation temperature in the mound, but eggs can also tolerate high variations in temperature caused by heavy rain periods or hot spells.
  - Mounds are not tended during the non-breeding season. Many males choose a new location for their mound each year, but some build on top of last year's decomposed mound, or take over existing compost heaps.

## Behaviour

- Brush-turkeys do not live in pairs, but are often seen in loose congregations around feeding sites.
- At night, they roost high up in trees, often several Brush-turkeys are seen in the same tree.
- They use established paths when travelling to and from their roosting tree and are hence often seen in the same location at the same time of day, every day.

# Living with Australian Brush-turkeys

During the breeding season, Brush-turkeys can cause considerable damage to suburban gardens while building their mounds. Year-round, they can uproot plants when scratching for food. This leads to complaints from local residents, especially in areas where these birds have only recently re-established themselves. Surveys in other areas, where Brush-turkeys have occurred for longer, have shown that up to 75% of people tolerate them in their backyards. **The following tips can help to live more harmoniously with these native birds:**



Brush-turkey feeding on bird seeds that a well-meaning landlord provided for the local parrots.

## Avoid attracting them to your backyard

**Reduce or remove potential food sources.** Brush-turkeys eat almost everything, including pet or chicken food, other birds seeds, or any other food scraps left lying around. Also cover your compost heaps, as they love to feed from these. Remove unnecessary sources of water that these birds can drink from.

**Reduce the availability of building material for their mounds.** Keep piles of spare mulch covered with tarpaulins. Gravel-type ground covers instead of mulch do not only protect the plants but are also not suitable for mound building.

## Encouraging them to relocate

Once a mound is established, it is very difficult to convince a male to relocate. Many people accept the presence of these unique birds in their backyards and enjoy a supply of high-quality compost from the mound after the breeding season is over (e.g. from March – July).

During the non-breeding season, once eggs have hatched, compost from inside the mound can be used as garden fertiliser.

If the male starts to re-build, you can cover the new mound with a heavy duty tarpaulin or shade cloth. This may encourage the male to change location. **Note that this is only legal in the first two or three weeks of mound-building before the females lay eggs in the mounds.**

Try to encourage a mound site away from valued gardens by providing mulch in an area of heavy shade .



Once males have established their mound, it is very difficult to convince them to relocate.

## Planning your garden

A well established garden is not as vulnerable to destruction as newly planted or mulched areas. When planting and mulching new areas, you can deter Brush-turkeys by making it hard for them to rake the ground.

- Cover the ground with small rocks, large gravel, large heavily branched sticks or logs, especially around the base of new plants.
- Use tree guards to protect individual plants.
- When planning your garden, consider the use of rock combined with planting species that build a thick ground cover, such as *Lomandra*, *Dianella*, Bromeliad and some *Grevillea* varieties
- Time your plantings so they coincide with the non-breeding season, when males don't build mounds.
- Develop your garden in stages, protecting plants at each stage.
- To protect your vegetable gardens, consider either raised garden beds, or fence in the garden with shade cloth all around. Brush-turkeys don't usually scratch in areas they can't see, so anything that's above their height, ca. 70 cm high, should be safer from their scratching. Only very adventurous individuals might hop over fences or into raised garden beds, and in this case, a higher fence, or a cover across the top, needs to be installed.

**Remember:** Brush-turkeys are protected by NSW law, and it is therefore illegal to attempt to harm the birds or trap them without an appropriate permit. This includes damaging or destroying the eggs in the mound, or preventing chicks from leaving the mound.