

# Encountering wildlife without feeding

## Introduction

Humans have been intentionally and unintentionally feeding wild animals through the ages and in some cases this has contributed to a process of domestication which has resulted in species being alienated from their natural habitats. In Australia, feeding of wildlife in backyards and picnic areas has been a tradition, and continues to be very popular. In some cases the impacts on native animals is slight. In extreme cases feeding may result in injury, disease or death of the animals being fed as well as harmful effects in the wider environment. This note explains some of the problems associated with feeding of native wildlife so that you can assess, in your own situation, whether it is a good idea to feed or not. We also suggest alternative ways to experience a close relationship with native animals without harming them or creating a dangerous situation for humans.

## Feeding wildlife — the potential problems

Potential problems with wildlife feeding include the following:

- Risk of disease and injury;
- Wildlife exhibiting pest behaviours;
- Creating an unbalanced population of more dominant and aggressive species; and
- Altering species migration patterns.

## *Dependence on fluctuating food sources supplied by humans, rather than natural sources*

Anecdotal evidence suggests that food provided on a regular basis can lead to dependence. This can cause problems affecting both the individual animal and the entire community of wildlife, both plants and animals. Again on a local level the dependence on additional food sources can be so severe it is said that if food is not provided (e.g. when you go on holidays) the wildlife can die of starvation. This dependence can also be passed on to offspring with parents teaching young to queue at a succession of feeding trays around the neighbourhood rather than passing on essential foraging and hunting skills. Natural selection allows the fittest and healthiest animals to survive and pass on their genes.

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With regular feeding the 'fittest' birds and other animals are the ones that reach the feeding station the fastest or dominate it when they get there. They are not necessarily the ones best adapted to their natural environment.

Another consideration is the effect on natural sources of food. Many Australian plants rely on native animals for pollination and the spreading of seed.

The issue of feeding wildlife on national parks, private property and public areas is a far more complicated and significant statewide issue.



Supplementary feeding may cause dietary problems

There are mixed opinions on wildlife feeding within the general community ranging from concerns over “dependency, impact on neighbours, disease, aggressiveness” through to “we owe it to the wildlife” and “it just plain feels good”.

A survey by the Suburban Wildlife Research Group from Griffith University in August and September 2000 found that “feeding wildlife was, for many respondents, a passion and a passion they very much wanted to share” (Howard, P and Jones D, 2000). Set in Brisbane, originally the survey was to involve 20 to 30 people and a small number of professional wildlife managers. To facilitate this they sent out media releases, featured on local radio and placed a notice in the Public Notices section of The Courier-Mail.

More than 260 people responded. As a result a survey form was sent out consisting of the same questions to be asked of those involved in the interview process. Twenty-eight interviews were conducted including six professional wildlife managers.

Howard and Jones state “Other research (Thomas and Jones 1998, *unpublished data*) suggests that as many as 38 percent of the Brisbane population buy food for the purpose of feeding wildlife. This suggests that more than one in every three households is feeding wildlife.

With such resources available it is hard to imagine that if dependency does occur it is on the food supplied by a single household”.



**Wildlife feeding is strongly discouraged in national parks. Animals, such as butcher birds, risk injuring people and themselves when attempting to “steal” food from picnickers.**

### ***Dietary balance and possible health problems***

Birds and animals obtain vital nutrients from the varied natural foods they eat. The nutrient requirements increase if the birds are growing, moulting or breeding. For example, lorikeets derive their proteins and fats from pollen and insects and their carbohydrates from simple and complex sugars found in nectar. Supplementary feeding, although attractive as a “free meal”, may cause dietary problems due to the amount or unsuitability of the food being provided.

Burger (1997) states “For example if the birds which are hand-fed at bird-feeding stations in backyards, had their food taken away, then most probably they would not die but resume using their other foraging localities to a greater extent. Therefore the bird’s dependency upon food is not an issue. It should be the nutritional quality of the food in case the birds are obtaining 100 percent of their diet from one artificial food source (or several).”

In the wild carbohydrates are scarce, but easily available carbohydrates from feeding trays can cause problems with the gut. For example bread, because it is so easily digestible, can ferment and cause a build-up of acid (the equivalent of indigestion and heartburn in humans).

This is referred to as lactic acidosis in mammals and birds. Bread, along with other processed foods also contains salt which is not present in natural diets. Information signage at the Zumstein Section of the Grampians National Park (Victoria) regarding kangaroos states in part: “Bread, chops, sausages and other food are foreign to their digestive systems and can cause health problems. Kangaroos are not adapted to eating processed human food. It causes severe health problems and commonly results in the early death of an animal.”

A problem associated with overfeeding is engorgement which can stimulate increased peristalsis (waves of muscle contraction), therefore increasing the rate of passage in the hindgut and upset gut bacteria. It is possible that this can flush out the shell grit in the gizzards of birds which is vital for the digestion of food. Animals obtaining food from humans will eat less wild food, leading to dietary problems such as calcium and thiamine deficiencies (Bruce Pascoe pers. comm. 1997). In severe cases this can lead to diseases such berri berri (observed in red wattle birds) (Paton et al, 1983). Nutritional myopathy caused by vitamin E deficiency leads to severe muscle damage and paralysis in lorikeets. Other health problems caused by inappropriate diet include lumpy jaw in wallabies and egg shell failure in birds.

Munday (1988), Butler (1983), Spear *et al.* (1989) and Samuel (1983), shows that lumpy jaw is associated with: “the presence of specific bacteria (most common *Fusobacterium necrophorum*) in large numbers on the ground or pasture, a lesion within the mouth for these bacteria to enter, and lower resistance due to various stress factors (overcrowding, unhygienic conditions, poor nutrition). Undoubtedly, the physical state of the animals and the conditions under which they are held are of prime importance in the pathogenesis of the disease” (Monday, 1988).

Although to date, there is no link between human food and lumpy jaw in macropods, more scientific research is needed in this area.

#### ***Alteration to the community structure of the animal population***

The Australian bush can be harsh and resources are sometimes scarce. As a result, animal numbers boom in the good times and die off in the bad. This may seem harsh but it maintains a natural balance between species numbers and available resources. Supplied food interferes with this balance when it leads to an unnaturally large increase in the number of one species. For example, feeding may attract large numbers of common brushtail possums. This could then result in other species of arboreal mammals or birds having difficulty competing for scarce resources such as nest hollows with such a super-abundant and aggressive rival.

A large concentration of the more aggressive feeders such currawongs, crows or magpies may promote fighting, territorial disputes and

displacement of less aggressive species. Feeding stations attract predators so the animals you feed may themselves become food for feral cats, foxes or hawks.

Ringwood and Wesley (1995) also claim that with a constant available food supply, some species have an increased breeding capability with nesting hollows not being rested between seasons.

#### ***Transmission of diseases***

Professor Roger Kelly of the University of Queensland Veterinary Pathology Department recently found that a large die-off of rainbow lorikeets was due to a bacterial infection picked up by lorikeets visiting backyard feeders. Some feeders were filthy and bacteria was transferred on birds’ feet to feed stations over a large area. Many birds died as a result. Diseases such as the highly contagious psittacosis and psittacine beak and feather disease can be spread by contact, feather dander, saliva or droppings. Regular cleaning of trays will not necessarily prevent the spread of disease. A large number of viral, bacterial and fungal diseases can be transmitted through feeding trays. Commercial seed bells are popular and may give the impression of approximating a natural diet. However, many questions remain unanswered about their effect on wild bird populations. The contents of seed bells can vary and the seeds may not be the type the birds normally feed on. Many contain pesticides and fungicides as well as artificial preservatives and additives. Wood glues are used to bind the seed together in some bells.

Another possible problem is the presence of viable weed seeds which can assist in the spread of weeds to an area.

#### ***Conflicts arising between humans and wildlife***

Zoonoses are diseases that can pass from animals to humans. Most zoonoses originate in animals that are closely linked to humans such as brucellosis in cattle and Hendra virus in horses. However, there are quite a number of microbes that are carried by native wildlife that are capable of causing disease in humans, for example, Murray Valley encephalitis, *Rickettsia australia* (causing Queensland tick typhus) and schistosomes from birds causing swimmers itch. These diseases are rare, possibly due to native wildlife being predominantly nocturnal and shy, but increased contact could also increase their incidence in humans.

There are other dangers to humans associated with feeding. Animals which are accustomed to being fed may become bold and aggressive in seeking food. For this reason feeding of picnic scraps to animals is strongly discouraged in national parks and other protected areas. Butcher birds and currawongs risk injuring people and themselves when attempting to “steal” a morsel of food from picnickers. Potentially lethal aggression towards humans by larger animals such as dingoes and cassowaries has also been attributed to feeding.

On Fraser Island Moussalli (1994) studied a group of dingoes who had access to food from tourists, fishers and local dumps. He concluded that dingoes displayed aggressive and nuisance behaviour to humans and property in times of low food.

Other people may not share an affection for native animals. If a feeder's neighbours are upset by large numbers of noisy, aggressive or "messy" animals visiting the property to obtain food, they may take out their annoyance on the animals or the feeder!

### **Weaning animals off human food sources**

Anyone feeding wildlife could consider gradually reducing the supply of food, forcing the animals to rely on natural sources while not causing an immediate food shortage. Wildlife that has been raised in captivity may be entirely dependent on human food sources and expert advice should be sought as to whether release to the wild is a viable option. Sick or injured animals should be taken to a wildlife shelter where experienced carers can look after the animal. Contact your nearest office of the Queensland Parks and Wildlife Service for advice.

### **How to encounter native wildlife without regular feeding**

You can increase your chances of encountering native wildlife without the need for feeding by protecting, enhancing or reinstating the natural vegetation and habitat features on your property. The wildlife will benefit even if you are not there.

#### ***Habitat management***

Near the home or viewing area, you may increase the amount of wildlife visiting by planting local native food plants that provide nectar, fruits, different foraging substrates (e.g. bark types) and a shallow source of water for birds away from vegetation that could conceal predators.

Maintain a healthy understorey and leaf and twig litter layer and replace weeds with native plants. It is important to plant local native species as many introduced flowering shrubs obtained from nurseries attract wildlife but are sterile and attract animals away from viable seed.

Old feathers, natural fibres (wool and hair) and short stems of dried grass can be used to attract birds in the breeding season. Place them in a tree or shrub fork, away from the potential danger of predators, near a place from where you can observe the animal while remaining concealed.

#### ***Understanding wildlife***

Increasing your knowledge of wildlife will help you to locate and view species. Become familiar with the habitats that animals use, their patterns of activity, where they breed, shelter and feed. Waterholes are often good observation points. Learning about wildlife and searching for it in the wild, though less predictable than feeding, adds to the adventure of encountering wildlife.

As the results are inconclusive it's really a matter of balance, if you do feed wildlife please take into consideration the views presented above and keep in mind the importance of quality, quantity, frequency and hygiene. There are many different views on this subject and in the absence of hard scientific data it is always better to err on the side of caution and "keep wildlife wild".



Enhancing or reinstating natural vegetation on your own property will benefit wildlife.

## Acknowledgements

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