

Taking heed of bird seed

Feeding native animals is now an offence under the *Biodiversity Conservation Act 2016*. It can alter natural behaviours, aid in the proliferation of pest species and, in some cases, cause animals to become aggressive towards people. However, there are circumstances where feeding native birds is necessary for conservation. Feeding off-the-shelf bird seed, which is often sourced from non-native plants, has the potential to disperse weeds, so a study was conducted to find ways to help prevent it impacting on our natural environment.

by Mark Blythman





In the past it has been commonplace for Western Australians to feed birds that visit our yards. Most of us know at least one house in the neighbourhood that many different types of birds visit for a feed, or have been to a lake or riverside and witnessed a bag of crusts being shared among the local waterbirds. There have long been health-related council by-laws that prohibit people from feeding wild birds, but, until recently, it has not been an offence to feed native birds in Western Australia for biodiversity conservation reasons.

IN THE HANDS OF THE LAW

New laws to prevent some of the negative impacts associated with feeding native birds have recently come into effect, and a licence is now required from DBCA to feed native fauna. Section 155 of the *Biodiversity Conservation Act 2016* has made feeding native wildlife, including birds, without authority an offence (this does not include native species that are held legally in captivity).

These laws have been introduced to protect the health and welfare of native

.....
Previous page

Main left Western rosella eating seed provided.
Photo – Marc Russo

Main right Port Lincoln parrot *Barnardius zonarius zonarius* eating seed in natural environment.

Photo – Sallyanne Cousans

Below Hand feeding native wildlife is now an offence.

Photo – Ann Storrie



species; native birds are often fed food, such as bread, that is not suited to their physiology. This practice can also create an unhealthy dependence on humans, discourage natural behaviours and draw native animals to areas where they may be more susceptible to predation. And, feed sites can often be exploited by introduced or problem species, such as corellas, which can lead to their proliferation.

There are some situations when feeding wild native birds can be an important tool for research, conservation or land management. But, this is carried out only in extenuating circumstances, under controlled conditions and with necessary licences (see 'Focused feeding' below).

POTENTIAL FOR WEED INTRODUCTIONS FROM FEEDING BIRDS

When it is necessary to feed native birds, it is important for researchers and land managers to take steps to minimise the risk of spreading weeds, as most commercially available bird seed contains viable seeds unless indicated. There are commercially available bird seed mixes that have already been devitalised, but these may be a blend of seeds that are not suitable for the target species.

Many plants have evolved to make use of birds to transport their seeds; some are totally reliant on this method to complete their life cycle. While birds such as parrots

will generally de-husk seeds with their beaks, which renders them unviable, birds such as pigeons and doves that rely on their gizzard for mechanical digestion, can pass undigested and viable seeds some distance from where they were consumed.

A study recently published in *Australian Field Ornithology* demonstrated that seeds from a commercially available bird seed mix could be successfully devitalised (made unviable) by placing them in a microwave oven at a high setting for 2.5 minutes, or in a preheated electric oven at 180 degrees Celsius for 2.5 minutes. The viability of the treated seeds was tested by attempting to germinate them, and comparing their

Focused feeding

Supplementary feeding may be used to provide additional food for birds during times of shortage or when translocated or captive birds are 'soft released' into the wild.

In 2011 in Queensland, Cyclone Yasi damaged large areas of cassowary (*Casuarus casuarus*) habitat, stripping fruit from branches and ripping fruiting trees from the ground. To prevent the birds starving or leaving the safety of the rainforest to search for food, the Cassowary Recovery Team deployed more than 100 feed stations, which they stocked with fruit, throughout the devastated area.

Monitoring and trapping sites often use food to encourage birds to a focal point where they can be trapped or monitored for research.

Seabirds such as albatross are easily captured by hand at breeding colonies, but when they need to be captured at sea to apply satellite trackers, chum (bait usually made up of made up of fish offal) is used to attract them close to the boat where hoop or pole nets are used catch them.

Rehabilitated, captive bred or translocated birds require feeding to ensure they are in good condition before release.

Rescued black cockatoos that have endured a lengthy rehabilitation period at Kaarakin Black Cockatoo Conservation Centre are switched from their regular captive diet to one that has a higher nutrient content in the weeks prior to release.

Diversionsary feeding is sometimes used by farmers and orchardists who provide a sacrificial crop that birds are free to eat to divert damage away from their production crops.

A winery in Margaret River planted crops of sunflowers next to their vines to provide an alternative food source for Australian ringnecks (*Barnardius zonarius*) at a time when the grapes are most susceptible to parrot damage.



Above A juvenile southern cassowary.
Photo –Stan Breeden/Lochman Transparencies

Medicated feed can be provided to wild bird populations that require treatment or management.

An oral contraceptive that can be added to food and presented to wild birds at feed sites has been used to help manage feral pigeon populations. Limiting the pigeons ability to reproduce is a long-term management strategy as the treated birds remain alive and continue to be a problem.

Treated feed can be used to help track and monitor individual birds.

A luminescent food additive was added to grain to help eradicate feral chickens on Northwest Island, Queensland. Both the bodies and the dung glowed under UV light, which helped to locate roosting birds at night time and to determine which birds were attending feed sites.

success to untreated seeds. The study does not suggest that all bird seed can be devitalised using these methods, but it describes a simple method that can be used to determine if the seed has the potential to germinate. It may be the case that certain species of seeds require a longer period of heat treatment or some other form of treatment such as cracking to render them unviable.

Due to the potential for increased or decreased nutrition of heat-treated seeds, it is not recommended that heat-treated seeds are used for captive birds, unless directed by a veterinarian. However, if viable seeds are spilling out of an aviary and are being eaten by wild birds, practices should be put in place prevent this.

Right Red-eared firetail at a garden water source.

Photo – Cliff Winfield

Below left Planting date palms should be avoided.

Below right Twenty-eight parrot (*Barnardius zonarius semitorquatus*) eating seed.

Photos – Jiri Lochman



Gardening for wildlife

Rather than actively feeding native birds, landholders can play a role in ensuring native species have access to their natural food sources. Maintaining existing native trees and shrubs and, where possible, establishing new native plants, can provide food and other resources for local fauna. Perth Zoo provides information about how to create a bird-friendly garden (see perthzoo.wa.gov.au/get-involved/do-your-part/bird-friendly-garden) and the 'plants for Carnaby's search tool' can be used to find the most suitable plants for your garden, though these should not be planted in high traffic areas, such as road verges, to reduce the chance of vehicle strike (see dpaw.wa.gov.au/images/documents/plants-animals/animals/p4c_plantlist_20110415.pdf). Perth residents can also play a role in providing habitat for quenda and butterflies by planting native species.

Species such as olives (*Olea europaea*) and coastal sheoak (*Casuarina equisetifolia*), which attract corellas, and coral trees (*Erythrina* sp.) and date palms, which provide food and nesting habitat for introduced rainbow lorikeets, should be avoided.

It's a good idea to leave water out for native animals, particularly during the hot, summer months. However, it should be kept clean and, if possible, surrounded by spiky/prickly native plants to keep cats away and provide somewhere for the birds to flee if they feel threatened. Rocks or branches should also be placed in the water, so animals can climb out if they fall in.



Mark Blythman is a DBCA Biodiversity and Conservation Science technical officer. He can be contacted by email (mark.blythman@dbca.wa.gov.au).

For more information about the study, please refer to: Blythman, M. and Sansom, J. (2019). Devitalising bird-seed to prevent dispersal of weeds by birds. *Australian Field Ornithology* 36, 31-33.

For more information about the Biodiversity Conservation Act, living with wildlife, gardening for wildlife and butterflies, and wildlife licensing visit dbca.wa.gov.au.