



## WILDLIFE SAFE HAVENS

### *Creating Wildlife Habitat on your Property*

There are 3 main things to think about if you would like to create a Wildlife Safe Haven:

**Water**, **Shelter** and **Food**.

#### Water

Provide containers of **clean** water around your yard. Keep them **clean** and change water daily.

Containers of different depths and at different heights can help provide water for a range of different birds and animals.

Containers placed under some bush or tree cover provides both shade and assists birds to be better placed to escape from predators.

Place sticks or stones in the containers to allow smaller animals a way out if they fall in.

Or you could try building a wildlife water station for a reliable and consistent source of water (as pictured in the last photo—see the references to a link to building one).



#### Shelter

##### Leave fallen logs on the ground

As dead wood decomposes it aids new plant growth by returning important nutrients to the ecosystem. Living organisms, called decomposers live among rotting wood, feeding on it. These include earthworms, insects, fungi, and bacteria. Leaf litter, fallen timber and other plant debris provide a range of habitat functions.

Many frogs, lizards, insects and reptiles live in and feed on fallen logs and the decomposers. These in turn provide food for birds, reptiles and mammals. Mammals such as Echidna, Quolls, and Bandicoots are dependant on hollows in fallen logs as breeding and sheltering sites.

You can create wood stacks or piles on your property.





## Shelter

### Do not remove bushrock!

Bushrock provides habitat for spiders, beetles, skinks, geckos, frogs and snakes. It provides shelter from the wind, rain, sun and predators.

Bushrock can also provide egg-laying sites for reptiles and habitat for many different plants, mosses and lichens. Removing bushrock can cause soil compaction, increased water runoff and turbidity and sedimentation of water courses. It may also cause loss of vegetation, soil erosion and reduction in shelter sites for animals.

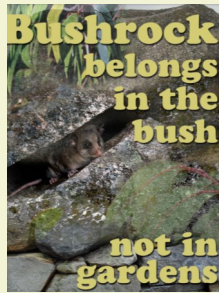
### Rubbish is not always rubbish!

Rubbish, such as solid metal objects, timber or sheets of iron (**not plastic!**), can be a vital substitute for fallen timber and rock, and is often used by reptiles, frogs and invertebrates.

Old buildings and stone walls with crevices offer shelter and foraging for birds, bats and reptiles.

Fallen timber is extremely important, a wide range of animals rely on patches of ground timber for foraging, nesting, resting, perching or basking habitats.

In wetlands and waterways fallen timber is used by fish, turtles, birds and many other animals.



### Large old trees including dead trees are essential habitat

Conserve large old trees. They have greater habitat value than younger, smaller trees because they provide most of the nesting hollows, crevices, nesting and perching sites. They are also more reliable sources of nectar and fruit as well as fallen timber and leaf litter for ground layer habitats.

Hollows and fissures in trees, both alive and dead, are used by birds, bats, frogs, reptiles and arboreal (tree-dwelling) mammals for roosting, protection and nesting. Often to many different species at the same time. Large hollows with small entrances are particularly valuable.

Dead standing trees provide perching, nesting and foraging sites especially for birds of prey.

Wooden fence posts and stumps provide foraging, nesting, resting, perching or basking habitats for birds and reptiles.





## Shelter

### Nest box installation

With fewer natural tree hollows around, you can help native wildlife by installing a nest box. This will provide a nesting or roosting place for fauna species when hollow-bearing trees are uncommon in an area.

Did you know Australia has the most hollow-dependent wildlife in the world?

Tree hollows support a huge variety of native animals, like sugar gliders, kookaburras, microbats, ducks, owls, parrots, galahs, cockatoos and possums, for nesting, roosting and shelter.

It takes at least 80 years for trees to start forming hollows – and close to 300 years for a hollow large enough for a powerful owl or a cockatoo to use.

Many trees have been cleared to make room for urban development or to be used for firewood, or removed due to potential safety risk. Recent bushfires in Australia have also resulted in the loss of large, old habitat trees.

With less older trees, it means less natural hollows, we're losing them faster than we're gaining them.



### What type of nest box should I install?

Different nest boxes suit different species. Size and habitat requirements differ such as the entrance size and shape, depth, and degree of insulation.

Possoms are quick to use nest boxes when they are available, but different species do so in different ways. Pygmy possums and common ringtail possums tend to make a leaf nest in the branches of trees, but will utilise hollows during the wetter periods. However Brushtail possums seek out a hollow to shelter throughout the entire day.

Sugar and Squirrel Gliders need multiple hollows in their home range for refuge as well as nest sites. They live in family groups and have been found to use 6 different hollows over a 12 month period.

Rosellas and many parrots like to nest in vertical hollows, whereas ducks and kookaburras prefer horizontal hollows.

Microbat species use boxes to roost during the day and for hibernation in winter. Microbat boxes need to be designed with a landing pad at the bottom of the box so they can crawl up inside.

It is possible to create homes without a large expense, for example the possum nest in the photo above made out of two hanging baskets. More info is available in the resources.



## Shelter



### Where should nest boxes be installed?

Nest boxes should be installed at least 4 metres high to avoid threats from dogs, cats, rats and foxes. Ensure easy access to the box to maintain it.

Make sure the box entrance faces away from the harsh afternoon sun and is placed to avoid strong winds.

## Food

### Plant endemic native fruiting trees, vines and shrubs

Native gardens with a diverse range of endemic plant species are best for attracting wildlife.

Grasses and other small plants, including native pastures, are important shelter and feeding areas.

Patches of dense spiky vegetation provide nesting, roosting and foraging areas, particularly for small birds, with some protection from predators.

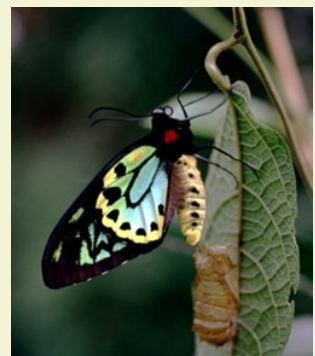
Tangles of vines in rainforest and moist eucalypt forest provide nesting sites.

Flowering trees and shrubs provide nectar and pollen and are key food resources for wildlife and can provide a year round food source.

Trees with different bark types provide homes and foraging areas for diverse invertebrates, small reptiles and birds; also nest building material. Leaves of eucalypts and other species are food sources for mammals and invertebrates.

The removal of invasive species is also important to prevent a reduction in diversity.

For help with choosing the right native plants for your situation see the Native Species Planting Guide in the resources.





## Food

## Shelter

### Restore, expand and connect habitat

Re-establish vegetation along creek banks, dams and wetlands.

Increase and establish corridors between isolated areas of vegetation to allow safer movement.

If an area has large hollow-bearing trees and fallen logs, but no flowering understorey; consider supplemental understorey inter planting with native flowering shrubs, grasses and ground covers.

Keep at least 1m cleared buffer around large trees to protect from fire.

Allow and encourage native vegetation to regenerate into adjacent cleared land by fencing to include paddock trees and fallen timber.



### Fence off rivers and streams from stock to create a buffer

Rivers, streams, wetlands or dams allow your property to be used by aquatic species such as fish, yabbies, small invertebrates as well as birds, bats, frogs, and reptiles. Restricting stock access helps to protect aquatic plants and reduce bank destabilization. But if fencing please use wildlife friendly fencing.

Fallen timber submerged and above the surface, vegetated banks and forested areas close by are all important habitat.

Dams vary greatly in habitat quality, but can be valuable for a range of animals. They can also be planted out with local species to improve habitat.

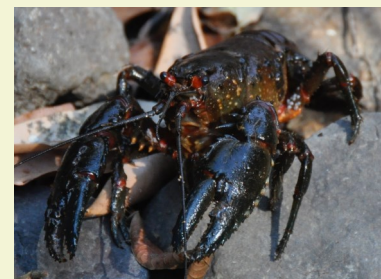
### Leaf litter and soil health

Healthy soil hosts a diverse range of small organisms: fungi, bacteria, small invertebrates, also burrowing mammals, reptiles, frogs and larger invertebrates such as spiders. It also has greater water holding capacity.

Leaf litter cover and depth varies with climatic conditions and time since fire, but is very important for natural decomposition systems to function and for habitat for all the organisms mentioned above. It also helps to keep the soil temperature down and prevent erosion.

Seasonal cracks in the soil are important for some fauna, such as reptiles and planigales (small marsupial carnivores). These cracks vary from relatively shallow (30 cm) to quite deep (more than 2 m), and provide shelter from extremes of temperature.

Rocky outcrops and surface rocks are very important basking, sheltering and feeding sites — particularly for reptiles, but also birds, invertebrates, frogs and bats.





WILDLIFE SAFE HAVENS

## Look, Listen, Learn and Record

### Monitoring

Wildlife monitoring is an essential part of protecting our native species. It provides valuable information about the areas where animals occur and how their populations are faring over time. It also identifies areas with high densities of feral animals, which helps to target control efforts.

As a private landholder, you can play an important role in protecting our native wildlife. Monitoring is a big job that is made a lot easier by sharing the load. Monitoring using motion activated camera's, nest box camera's and just being observant can help to create a picture of what wildlife uses your property.



Keep a wildlife diary to write down what you see and notice is seasonal patterns appear. By getting involved and helping us identify important areas for wildlife you can make a big difference!

### Further resources

[Wildlife Rescue Handbook](#) - first aid for wildlife, the first 24 hours—how to look after injured wildlife until carers arrive.

[Conservation Management Notes - Wildlife on your property](#) A guide to help landholders identify the aspects of their property that may be important to native animals.

[WIRES Wildlife Information](#) lots of info on all sorts of wildlife and how to make Wildlife Friendly Gardens and Wildlife Friendly Fencing.

[Backyard Buddies](#) —information on how to create habitat for birds, bugs, mammals, frogs, reptiles

[Nectar Food Trees in North Eastern NSW](#)

[Keep Bush Rock in the Bush](#)

[Restoring Pollinator Habitat](#)

[How to build a water for wildlife station](#)

[HotSpots Fire Project—Protecting our Hollows Fact Sheet](#)

[Benefits of Nest Boxes](#)

[How to make nestboxes from everyday objects](#)

[Australian Native Hollow Using Species Lists and Nest Box Designs](#)— from NestBox Tales website which has lots of great information on nest boxes and also a Facebook Group

### Choosing Native Plants

In Byron Shire start off by visiting the council's [mapping tool](#) and under the Environmental Layer you will find Vegetation Communities. This will give you a good idea of what type of vegetation is on and surrounds your property. This will then allow you to go to the [Native Species Planting Guide](#), an online resource to help you to choose native locally occurring plant species. You can also choose things such as bird attracting plants under 5m with yellow flowers—there are 21 of them! We suggest using tube stock as this is an efficient and effective way of planting. We have a list of local native nurseries that you can choose from. If you need any help creating a planting list, please get in touch with us at [info@brunswickvalleylandcare.org.au](mailto:info@brunswickvalleylandcare.org.au)



Good Luck!